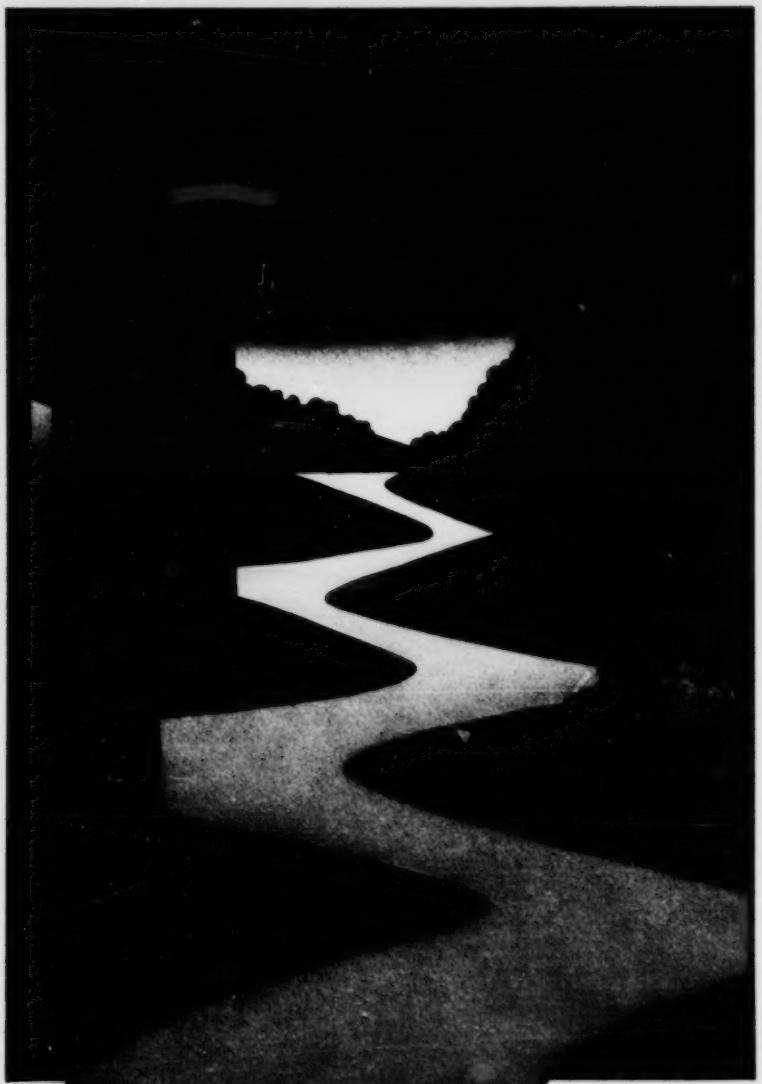
JOB FUTURES

AN OCCUPATIONAL OUTLOOK FOR

QUEBEC



JOB FUTURES - QUEBEC

An occupational outlook to 1993

1987-1988 Edition

Employment and Immigration
Economic Services Branch
Canadian Occupational Projection System (COPS)
Quebec

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INTRODUCTION

"Job Futures - Quebec" provides information on the Quebec labour market by occupational group. It features statistical and qualitative information on various elements of the labour market and how they affect occupational trends. Job Futures - Quebec is a companion to other publications and provides a reasonable view of expeceted labour market conditions in various occupational areas.

"Job Futures - Québec" has two parts:

Part One — Occupations of graduates from community college or university two years after graduation by major field of study. A major field of study can incorporate many specific study areas. These are listed at the beginning of Part One.

Part Two — Occupation outlooks to 1993 for 174 occupational groups (comparable to those covered by Job Futures - Canada).

Part One is organized by community college or university field of study. It gives the status of 1982 graduates - employed, unemployed or other (not in the labour force, previously in the labour force, student, outside Quebec) - two years after graduation. The occupations of employed graduates are also listed. The data are based on the 1984 National Graduate Survey of 1982 postsecondary graduates. A list of community college and university areas of study is provided at the beginning of Part One. The code numbers (e.g. 1132, 1171) and occupational titles come from Employment and Immigration's Canadian Classification and Dictionary of Occupations (CCDO). When you have found out which occupations correspond to your field of study, you simply look for the appropriate code numbers in Part Two of Job Futures. It is important to note that, in Part One, the sample occupations reflect a range of possible outcomes resulting from educational choices. They do not represent all the options. Not all the occupations listed for a field represent ideal of even appropriate short-term career goals for recent graduates. Rather, they reflect the realities of the job market over the 1982-84 period. These occupations should provide guidance, but not limit a graduate's creative job search.

Part Two covers 174 occupational groups and is organized sequentially by CCDO code number. It is important to note that this information does not reflect longer-term career paths. Senior positions require substantial on-the-job experience and additional training. Nevertheless, many of the occupations listed are part of the potential senior management career path.

Title and Tables

The title includes a numerical code and the name of the occupational group taken from Employment and Immigration's Canadian Classification and Dictonary of Occupations (CCDO), fifth edition, plus some sample occupations that are commonly found in the group. If you are looking for more detailed information on job categories, refer to the CCDO.

The reported figures and narratives apply to the occupational title that normally represents an entire occupational group. Therefore, a statement that applies to a group may not apply to each one of the individual occupations listed. For example, if a statement refers to the field of art restoration, it does not necessarily apply to the field of painting restoration, even though both are in the group Technicians in Library, Museum and Archival Sciences.

1- LABOUR MARKET DATA

Employment trends — This states how many people were in the occupational group in 1985, the projected number for 1993, and the difference, plus or minus, between 1985 and 1993. This does not include those who withdraw from the labour force because of death or retirement or those who move on to other occupations.

Estimated attrition — This means the number of projected withdrawals from the labour force because of death or retirement. It does not include movement from one occupational group to another.

Total requirements — This is what you get when you add the "change" from the Employment Trends section to the Estimated Attrition section. Roughly, it represents the personnel required to staff projected additional jobs plus the projected number of jobs vacated through attrition. This does not include estimates of job openings caused by persons moving from one occupation to another.

Estimated number of unemployed — This information comes from the UIC regular claimants file for Quebec in 1985, organized by occupation. We make the assumption that these unemployed will gradually be absorbed by the labour market over the period.

Community college graduates — This is the number of Cegep graduates who will enter the labour market in the occupational group in question between now and 1993. The projections are derived from an initial projection of the total number of CEGEP graduates, which is then broken down by occupational group on the basis of Statistics Canada s 1984 National Graduate Survey. Readers familiar with the Canadian Occupational Projection System (COPS) will notice some differences between the Job Futures - Quebec data and the COPS data; these are due to the use of slightly different methodologies.

University graduates — This is the number of university graduates at all levels (bachelor's degree, master's degree, doctorate) who will enter the labour market in the occupational group in question between now and 1993. The projections are derived from and initial projection of the total number of university graduates, which is then broken down by occupational group on the basis of Statistics Canada's 1984 National Graduate Survey. Readers familiar with the Canadian Occupational Projection System (COPS) will notice some differences between the Job Futures - Quebec data and the COPS data; these are due to the use of slightly different methodologies.

Partial supply — This is the sum of the number of unemployed persons plus the number of college and university graduates. It provides an outlook of the number of persons who will be ready to enter the labour market in 1993 in the occupational group in question. This represents only part of the supply from the educational system. High school graduates must be added to the college and university graduates. Because the statistics are not available, this information is not included in this first version of Job Futures - Quebec. However, when the supply for a given occupational group comes mainly from high school graduates, a comment to that effect is included. Moreover, there are sources of supply other than the educational system, which we have not been able to take into account for lack of data. These include training programs, homemakers entering the labour market, the armed forces, international and interprovincial migration and occupational mobility. It must be kept in mind, therefore, that the supply described in Job Futures - Quebec is partial.

Competition index — This is the ratio of supply to demand and is an indicator of the market imbalance for each of the occupations in question. A ratio greater than 1 indicates a surplus of available human resources, and a ratio less than 1 indicates a shortage of human resources or an underestimation of the supply due to certain sources of supply which Job Futures - Quebec is not able to take into account. The narrative description clarifies the situation for each of the occupations.

2- DISTRIBUTION BY REGION OF QUEBEC

These date provide a percentage breakdown of employment in the occupation and active UIC claimants by Quebec economic region:

01 Lower St Lawrence, Gaspé
02 Saguenay, Lac St-Jean
03 Quebec City
04 Mauricie, Bois-Francs
05 Eastern Townships
06 Montreal
07 Outaouais
08 Northwestern Quebec
09 North Shore

3- PRINCIPAL CHARACTERISTICS

Sex composition — This information comes from the 1981 Census and gives the proportion of males and females in the occupational group. Next to this is the average sex composition of all occupations - 40 per cent women and 60 per cent men.

Age composition — Also from the 1981 Census, this gives the proportions of young and old in the occupational group compared with the proportion of those under 25 years (25 per cent) and those over 54 years (12 per cent) in the entire labour force.

Status composition — This information comes from the 1981 Census and gives the proportion of full-time and part-time workers in the occupational group. The figures represent persons who had worked in the occupation full time for 49 to 52 weeks from January 1, 1980.

Industrial concentration — These date come from the 1981 Census and show the industr'al sector(s) where the occupation is concentrated in descending order of degree of concentration.

Trends — The following information may or may not be included, depending on the occupation.

The expected rate of employment growth, relative to the average for all occupations (1.2 per cent per year in Quebec). This is based on the average annual rate of employment growth projected for the 1985-93 period.

The size of the human resource supply likely to be available an ready to enter the labour market in 1993. Comments on expected surpluses and shortages.

A description of technological, demographic or other factors that may effect the group. Comments on how these changing factors affect skills and knowledge required.

Market requirements — The training required to enter the occupational group and skills and knowledge required, where applicable.

When data under any of the headings in Part Two are not available, this is indicated by "NA".

Note of the Canadian Occupational Projection System (COPS)

Job Futures - Quebec is produced by the Canadian Occupational Projection System (COPS). The purpose of the system is to project labour market supply and demand for Canada as a whole and the provinces. Developed by Employment and Immigration Canada in conjunction with the provincial governments and the private sector, COPS combines statistical projections with information gathered through sectoral studies and consultation with business, in order to determine the labour market outlook as accurately as possible. By comparing COPS projections of supply and demand, governments, the business community and educational institutions are able to identify where human resource surpluses and shortages are likely to occur.

The COPS demand model consists in a series of hypotheses concerning future trends in general economic growth. These economic forecasts generate production and employment projections that are broken down by industrial sector, occupation and province. Employment projections by occupation are available to 1993. Continuing update ensures that COPS models remain timely.

DETAILED LIST OF OCCUPATIONAL GROUPS

DETAILES LIST OF OCCUPATIONAL GROUPS

113/114	**Other Managers and Administrators**
1130	General Managers and Other Senior Officials
1131	Management Occupations, Natural Sciences and Engineering
1132	Management Occupations, Social Sciences and Related Fields
1133	Administrators in Teaching and Related Fields
1134	Administrators in Medicine and Health
1135	Financial Management Occupations
1136	Personnel and Industrial Relations Management Occupations
1137	Sales and Advertising Management Occupations
1141	Purchasing Management Occupations
1142	Services Management Occupations
1143	Production Management Occupations
1145	Management Occupations, Construction Operations
1146	Farm Management Occupations
1147	Management Occupations, Transport and Communications Operations
117	**Occupations Related to Management and Administration**
1171	Accountants, Auditors and Other Financial Officers
1174	Personnel and Related Officers
1175	Purchasing Officers and Buyers, except Wholesale and Retail Trade
1176	Inspectors and Regulatory Officers, Not Elsewhere Classified
211	**Occupations in Physical Sciences**
2111	Chemists
2112	Geologists
2113	Physicists
2117	Physical Sciences, Technologists and Technicians
213	**Occupations in Life Sciences**
2131	Agriculturists and Related Scientists
2133	Biologists and Related Scientists
2135	Life Sciences Technologists and Technicians
2139	Occupations in Life Sciences, Not Elsewhere Classified

214/215 Architects and Engineers

2141 Architects
2142 Chemical Engineers
2143 Civil Engineers
2144 Electrical Engineers
2145 Industrial Engineers
2146 Agricultural Engineers (see 2159)
2147 Mechanical Engineers
2151 Metallurgical/Materials Engineers
2153 Mining Engineers
2154 Petroleum Engineers
2157 Community Planners (see 2159)
2159 Other Professional Engineers, includes 2146 Agricultural Engineers, and 2157 Community Planners

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216 Other Occupations in Architecture and Engineering

2161 Surveyors
2163 Draughting Occupations
2164 Architectural Technologists and Technicians (see 2165)
2165 Engineering Technologists and Technicians, includes 2164 Architectural Technologists and Technicians

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218 Occupations in Mathematics, Statistics, Systems Analysis and Related Fields

2181 Mathematicians, Statisticians and Actuaries
2183 Systems Analysts, Computer Programmers and Related Occupations

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231 Occupations in Social Sciences

2311 Economists
2313 Sociologists, Anthropologists and Related Social Scientists
2315 Psychologists

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233 Occupations in Social Work and Related Fields

2331 Social Workers
2333 Occupations in Welfare and Community Services

234	**Occupations in Law and Jurisprudence**
2343	Lawyers and Notaries
235	**Occupations in Library, Museum and Archival Sciences**
2351	Librarians, Archivists and Conservators
2353	Technicians in Library, Museum and Archival Sciences
239	**Other Occupations in Social Sciences and Related Fields**
2391	Educational and Vocational Counsellors
271	**University Teaching and Related Occupations**
2711	University Teachers
273	**Elementary and Secondary School Teaching and Related Occupations**
2731	Elementary and Kindergarten Teachers
2733	Secondary School Teachers
2739	Elementary and Secondary School Teaching and Related Occupations, Not Elsewhere Classified
279	**Other Teaching and Related Occupations**
2791	Community College and Vocational School Teachers
2792	Fine Arts Teachers, Not Elsewhere Classified
2795	Teachers of Exceptional Student, Not Elsewhere Classified
311	**Health Diagnosing and Treating Occupations**
3111	Physicians and Surgeons
3113	Dentists
3115	Veterinarians
3117	Osteopaths and Chiropractors
3119	Health Diagnosing and Treating Occupations, Not Elsewhere Classified

313	**Nursing, Therapy and Related Assisting Occupations**
3131	Nurses, Registered, Graduate and Nurses-in-Training
3134	Registered Nursing Assistants
3136	Audio and Speech Therapists, Includes 3137 Physiotherapists, and 3138 Occupational Therapists
3137	Physiotherapists (see 3136)
3138	Occupational Therapists (see 3136)
315	**Other Occupations in Medicine and Health**
3151	Pharmacists
3152	Dietitians and Nutritionists
3153	Optometrists
3154	Dispensing Opticians
3155	Radiological Technologists and Technicians
3156	Medical Laboratory Technologists and Technicians
3157	Denturists, Includes 3158 Dental Hygienists/Assistants, and 3161 Dental Laboratory Technicians
3158	Dental Hygienists/Assistants (see 3157)
3161	Dental Laboratory Technicians (see 3157)
331	**Occupations in Fine and Commercial Art, Photography and Related Fields**
3313	Product and Interior Designers
3314	Advertising and Illustrating Artists
3315	Photographers and Camera Operators
333	**Occupations in Performing and Audio-Visual Arts**
3330	Producers and Directors, Performing and Audio-Visual Arts
3337	Radio and Television Announcers
335	**Occupations in Writing**
3351	Writers and Editors
3355	Translators and Interpreters

337	**Occupations in Sports and Recreation**
3370	Coaches, Trainers and Inspectors, Sports and Recreation
411	**Stenographic and Typing Occupations**
4111	Secretaries and Stenographers
4113	Typists and Clerk-Typists
413	**Bookkeeping, Account-Recording and Related Occupations**
4131	Bookkeepers and Accounting Clerks
4133	Cashiers and Tellers
4135	Insurance, Bank and Other Finance Clerks
4137	Statistical Clerks
414	**Office Machine and Electronic Data-Processing Equipment Operators**
4143	Electronic Data Processing Equipment Operators
415	**Material, Recording, Scheduling and Distributing Occupations**
4151	Production Clerks
4153	Shipping and Receiving Clerks
4155	Stock CLerks and Related Occupations
417	**Reception, Information, Mail and Message Distribution Occupations**
4171	Receptionists and Information CLerks
419	**Other Clerical and Related Occupations**
4192	Claim Adjusters
4197	General Office Clerks

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513 Sales Occupations, Commodities

5130 Supervisors: Sales Occupations, Commodities
5131 Technical Sales Occupations and Related Advisers
5133 Commercial Travellers
5135 Sales Clerks and Salespersons, Commodities, Not Elsewhere Classified

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517 Sales Occupations Services

5170 Supervisors: Sales Occupations, Services
5171 Insurance Sales Occupations and Agents
5172 Real Estate Sales Occupations
5173 Sales Agents and Trades, Securities
5174 Advertising Sales Occupations

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611 Protective Service Occupations

6112 Police Officers and Detectives, Government
6115 Guards and Related Security Occupations

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612 Food and Beverage Preparation and Related Service Occupations

6120 Surpervisors: Food and Beverage Preparation and Related Service
6121 Chefs and Cooks
6125 Food and Beverage Serving Occupations

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614 Personal Service Occupations

6141 Funeral Directors, Embalmers and Related Occupations
6143 Barbers, Hairdressers and Related Occupations

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619 Other Service Occupations

6191 Janitors, Charworkers and Cleaners
6198 Occupations in Labouring and Other Elemental Work: Other Services

711	**Farmers**
7113	Livertock Farmers, Includes 7115 Crop Farmers, and 7119 Farmers, Not Elsewhere Classified
7115	Crop Farmers (see 7113)
7119	Farmers, Not Elsewhere Classified (see 7113)
719	**Other Farming, Horticultural and Animal Husbandry Occupations**
7195	Nursery and Related Workers
731	**Fishing, Trapping and Related Occupations**
7311	Captains and Other Officers, Fishing Vessels
751	**Forestry and Logging Occupations**
7516	Log Inspecting, Grading, Scaling and Related Occupations
771	**Mining and Quarrying Including Oil and Gas Field Occupations**
7711	Rotary Well-drilling and Related Occupations
7713	Rock and Soil Drilling Occupations
7715	Blasting Occupations
813	**Metal Processing and Related Occupations**
8137	Moulding, Coremaking and Metal Casting Occupations
831	**Metal Machining Occupations**
8311	Tool and Die Making Occupations
8313	Machinist and Machine Tool Setting-up Occupations
8316	Inspecting, Testing, Grading and Sampling Occupations: Metal Machining
8319	Metal Machining Occupations, Not Elsewhere Classified

833	**Metal Shaping and Forming Occupations, Except Machining**
8333	Sheet Metal Workers
8335	Welding and Flamecutting Occupations
8336	Inspecting, Testing, Grading and Sampling Occupations: Metal Shaping and Forming, Except Machining
8337	Boilermakers, Platers and Structural Metal Workers
851	**Fabricating and Assembling Occupations, Metal Products, Not Elsewhere Classified**
8513	Motor Vehicle Fabricating and Assembling Occupations, Not Elsewhere Classified
8515	Aircraft Fabricating and Assembling Occupations, Not Elsewhere Classified
853	**Fabricating, Assembling, Installing and Repairing Occupations: Electrical, Electronic and Related**
8533	Electrical and Related Equipment Installing and Repairing Occupations
8535	Electronic and Related Equipment Installing and Repairing Occupations, Not Elsewhere Classified
8536	Inspecting, Testing, Grading and Sampling Occupations: Fabricating, Assembling, Installing
8537	Radio and Television Service Repairers
854	**Fabricating, Assembling and Repairing Occupations, Wood Products**
8541	Cabinet and Wood Furniture Makers
858	**Mechanics and Repairers, Except Electrical**
8581	Motors Vehicle Mechanics and Repairers
8582	Aircraft Mechanics and Repairers
8583	Rail Transport Equipment Mechanics and Repairers
8584	Industrial, Farm and Construction Machinery Mechanics and Repairers
8585	Business and Commercial Machine Mechanics and Repairers
8587	Watch and Clock Repairers
8588	Precision Instrument Mechanics and Repairers
8589	Other Mechanics and Repairers, Not Elsewhere Classified

859	**Other Product Fabricating, Assembling and Repairing Occupations**
8591	Jewellery and Silverware Fabricating, Assembling and Repairing Occupations
8592	Marine Craft Fabricating, Assembling and Repairing Occupations
871	**Excavating, Grading, Paving and Related Occupations**
8711	Excavating, Grading and Related Occupations
873	**Electrical Power, Lighting and Wire Communications Equipment Erecting, Installing and Repairing Occupations**
8731	Electrical Power Line Workers and Related Occupations
8733	Construction Electricians and Repairers
8735	Wire Communications and Related Equipment Installing and Repairing Occupations
8736	Inspecting, Testing, Grading and Sampling Occupations: Electrical Power, Lighting and Wire Communications Equipment Erecting, Installing and Repairing
878/879	**Other Construction Trades Occupations**
8781	Carpenters and Related Occupations
8782	Brick and Stone Masons and Tilesetters
8783	Concrete Finishing and Related Occupations
8784	Plasterers and Related Occupations
8785	Painters, Paperhangers and Related Occupations
8786	Insulating Occupations, Construction
8787	Roofing, Waterproofing and Related Occupations
8791	Pipefitting, Plumbing and Related Occupations
8793	Structural Metal Erectors
8795	Glaziers
911	**Air Transport Operating Occupations**
9111	Air Pilots, Navigators and Flight Engineers

913	**Railway Transport Operating Occupations**
9131	Locomotive Operating Occupations
915	**Water Transport Operating Occupations**
9151	Deck Officers
9153	Engineering Officers, Ship
917	**Motor Transport Operating Occupations**
9171	Bus Drivers
9175	Truck Drivers
951	**Printing and Related Occupations**
9512	Printing Press Occupations
9515	Photoengraving and Related Occupations
953	**Stationary Engine and Utilities Equipment Operating and Related Occupations**
9531	Power Station Operators
9539	Stationary Engine and Utilities Equipment Operating and Related Occupations: Not Elsewhere Classified
955	**Electronic and Related Communications Equipment Operating Occupations, Not Elsewhere Classified**
9551	Radio and Television Broadcasting Equipment Operators
9555	Sound and Video Recording and Reproduction Equipment Operators

PART I

Community College and University fields of study
and results from the National Graduate Survey on
community college and university graduates in Quebec

COMMUNITY COLLEGE FIELDS OF STUDY

ARTS

Fine Arts

- Performing arts
- Music
- Theatre
- Acting
- Theatre production
- Scenic design
- Ballet and dance
- Sculpture and painting
- Ceramics
- Arts and crafts
- Other fine arts

Graphic and Audio-visual Arts

- Photography
- Typography
- Printing and publishing
- Recorded music production
- Graphics
- Bookbinding
- Graphic communications
- Photolithography/photomechanical
- Graphic arts

Mass Communications

- Cinematography/film production/ animation
- Radio and television broadcasting
- Communications technology
- Media arts and technology
- Information

Other Applied Arts

- Upholstery
- Template making

HUMANITIES

Humanities

- Journalism
- Library science
- Documentation technology

SOCIAL SCIENCES AND SOCIAL SERVICES

Services

- Correctional technology
- Para-legal technology/legal studies/ legal assitant
- Police technology (criminology)
- Protective, fire, security, prevention technologies
- Police administration
- Special investigations
- Police operations

Social Services

- Child care
- Youth services
- Gerontology
- Chronic care
- Social services and social welfare technologies
- Home economics ans related fields
- Urban and community planning
- Other social services
- Rehabilitation technology
- Urban and regional planning technology
- Family life education
- Homemaker

COMMUNITY COLLEGE FIELDS OF STUDY

SOCIAL SCIENCES AND SOCIAL SERVICES (CONT'D)

Recreation and Sports

- Hunting and fishing management
- Community and recreational leadership
- Leisure and recreation management
- Physical education
- Tourism
- Guide training
- Travel agency clerk
- Ticket sales
- Recreation in parks, forests and wildlife reserves

Education and Counselling Services

- Counselling services
  - Drug addiction counselling
  - Counselling for the disabled
  - Marriage counselling
  - Financial counselling
  - Labour relations counselling
  - Educational and vocational counselling
  - Guidance counselling
- Education services
  - Early childhood education
  - Education of the disabled
  - Teaching assistance and educational support
  - Industrial arts training
  - Adult education
  - Teacher training
  - On-the-job supervision
- Other education and counselling services

Other Social Sciences

- Counselling course
- Communication skills development
- General culture
- Occupational development
- Anthropology

OTher Social Sciences (cont'd)

- Archeology
- Economics
- Geography
- Political science
- Psychology
- Sociology
- Other social sciences
- Family life education
- Family life education - nutrition
- Family life education - clothing
- Social science research technology
- Social-phychology research technology

MANAGEMENT AND ADMINISTRATION

Business and Commerce

- Business and commerce
- Accounting
- Administration and cooperation
- Office automation
- Office automation and accounting

Other Financial Management Services

- Portfolio management
- Appraisal of personal property and real estate
- Real estate management
- Banks
- Other financial management services
- Finance
- Taxation

COMMUNITY COLLEGE FIELDS OF STUDY

MANAGEMENT AND ADMINISTRATION (CONT'D)

Other Management and Administrative Services

- Industrial management
- Personnel management
- Public administration
- Manufacturing operations management
- Transportation management
- Other management and administative services n.e.c.
- Management and administration

Marketing

- Marketing
- Fashion merchandising

Other Sales and Commercial Services

- Insurance and securities
- Real estate
- Commercial and sales services
- Commerce and sales

SECRETARIAL ARTS

- General secretatial arts
- Executive secretary
- Office technology (secretary)

MATHEMATICS AND DATA PROCESSING

- Mathematics
- Data processing
- Systems technology
- Computer systems
- Finance and data processing

NURSING SCIENCES

Nursing

- Nursing
- Nursing care
- Psychiatric nursing
- Nursing, carlo-vascular
- Nursing, emergency
- Nursing, neurology
- Nursing, geriatrics

OTHER HEALTH TECHNOLOGIES

Medical Laboratory Technology

- Medical technology
- Cytotechnology
- Radiography, radiology, radiotherapy and nuclear medicine technologies
- Nuclear medicine technology
- Radiodiagnosis technology, ultrasound radiodiagnosis equipment and technology

COMMUNITY COLLEGE FIEDLS OF STYDY

OTHER HEALTH TECHNOLOGIES (CONT'D)

Dental Assistant Technology

- Dental hygiene technology

Other Diagnostic and Treatment Technologies

- Respiratory and anesthetic technologies
- Para-medical technology, emergency treatment
- Chiropractic technologies
- Laboratory and X-ray technologies
- Physiotherapy
- Pharmaceutical technology

Other Healt Technologies

- Dietetics and dietetic technology
- Psychiatric technology
- Speech therapy
- Healt and hygiene support technologies
- Biological sciences and technologies
- Public and environmental health
- Public health education
- Other health technologies
- Electromedical technologies
- Electrophysiology
- Food safety

CHEMICAL TECHNOLOGIES

- Chemical engineering technology
- Biochemical technology
- Metallurgical chemistry technology
- Industrial chemistry technology
  - Textiles, chemical dye

CHEMICAL TECHNOLOGIES (CONT'D)

  - Plastics and fibreglass
  - Chemical processing
  - Other industrial chemical technologies
- Photochemical technologies (laboratory photography)
- Chemistry
- Industrial chemistry
- Analytic chemistry
- Chemical engineering technology
- Biochemical technology

ELECTRICAL AND ELECTRONIC TECHNOLOGIES

- Electrical engineering technology
- Electronic engineering technology
- Marine electronics technology
- Electro-mechanical technology (electrometry, microwave)
- Telecommunications technology
- Radio and television broadcasting
- Telephone, telegraph, telex, radar
- Audio-visual equipment
- Electrodynamics
- Biomedical equipment
- Industrial electronics

TRANSPORT TECHNOLOGY

- Air transport
  - Aviation and flight technology
  - Parachuting
- Air transport support services
- Flight attendants
- Air transport, other
- Motor transport
  - Public transport
  - Commercial vehicles

COMMUNITY COLLEGE FIELDS OF STUDY

TRANSPORT TECHNOLOGY (CONT'D)

- Driver training
- Rail transport
  - Railway operation and maintenance
  - Passenger service
- Water transport
- Nautical science and navigation technology
- Seamanship

MECHANICAL ENGINEERING

- Agricultural mechanics
- Agricultural hydraulics
- Automotive technology
  - Automotive mechanics
  - Auto body repair
- Marine mechanics
- Heavy equipment mechanics
- Small engine mechanics
- Motorized equipment
- Maintenance analysis technology
- Mechanical technology

ARCHITECTURAL AND CONSTRUCTION ENGINEERING

- Architectural drafting
- Building mechanical systems
- Restoration of historic buildings
- Naval architecture
- Welding
- Realty appraisal
- Building and public works technology
- Construction cost estimation
- Cabinetmaking and woodworking technologies
- Building heating systems

GENERAL AND INDUSTRIAL ENGINEERING

- Industrial design
- Mechanical manufacturing technology
- Refresher course in digital electronics
- Production and control
- Quality control
- Aircraft manufacturing technology
- Civil engineering technology
- Technical drawing
- Cartographic and geodesic technologies
- Mechanical drafting
- Repair and maintenance
- Physical technology

AGRICULTURAL TECHNOLOGIES AND OTHER PRIMARY INDUSTRIES

- Farm management
- Agriculture
- Agricultural technology, science and engineering
- Agricultural operations
- Plant science and plant technology
  - Botany
  - Crop production and horticulture
  - Landscaping
- Soils, pesticides and fertilizers
- Irrigation and water use
- Animal husbandry
- Zoology
- Cattle breeding technology
- Poultry farming and egg production technologies
- Hog breeding technology
- Horses and horse breeding
- Veterinary medicine and animal healt technologies
- Forestry technology
- Mining technology
- Geology and prospecting
- Fisheries technology
- Hunting and trapping

COMMUNITY COLLEGE FIELDS OF STUDY

AGRICULTURAL TECHNOLOGIES AND OTHER PRIMARY INDUSTRIES (CONT'D)

- Market gardening
- Ornamental horticulture
- Plant technology
- Soil technology
- Farm development technology

RESOURCE PROCESSING TECHNOLOGIES

- Forest products processing
- Pulp and paper technologies
- Wood products processing
- Food processing technology
- Dairy technology
- Metallurgical technology
- Smelting technology

ENVIRONMENTAL AND CONSERVATION TECHNOLOGIES

- Environmental control and protection technologies
- Land use technology
- Wildlife protection technology
- Water resources technology
- Air purification technology

FIELD OF STUDY: **Fine Arts**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	695	100.0
Employed graduates	294	42.3
Unemployed graduates	134	23.6
Other graduates	267	34.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (294):	100.0
4133 - Cashiers	6.1
5135 - Sales clerks and salespersons, commodities, n.e.c.	10.2
2792 - Fine arts teachers	6.1
3332 - Musicians	6.1
4111 - Secretaries and stenographers	6.1
3131 - Graduate nurses	4.1
6125 - Waitresses and hostesses	4.1
9999 - Other occupations (designers, radio and television announcers, stock clerks, guards, cleaners, labourers, etc...)	51.1

FIELD OF STUDY **Graphic and Audio-visual Arts**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	192	100.0
Employed graduates	132	68.7
Unemployed graduates	24	12.6
Other graduates	36	18.7

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (132):	100.0
3314 - Illustrating artists	40.9
2165 - Engineering technicians	9.1
4131 - Bookkeepers	9.1
9514 - Printers, engravers	9.1
9999 - Other occupations (nursing assistants, clerks, salespersons, labourers, photoengravers, etc...)	31.8

Graduate Survey (1984) - Quebec Region — Community College Level

FIELD OF STUDY: **Mass Communications**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	72	100.0
Employed graduates	36	50.0
Unemployed graduates	30	41.7
Other graduates	6	8.3

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (36):	100.0
3351 - Writers and editors, publication	33.3
1137 - Sales directors	16.7
2799 - Other teaching occupations n.e.c.	16.7
3330 - Producers and directors	16.7
3370 - Coaches, trainers	16.6

FIELD OF STUDY **Other Applied Arts**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	156	100.0
Employed graduates	96	61.6
Unemployed graduates	30	19.2
Other graduates	30	19.2

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (96):	100.0
3313 - Designers	43.2
5135 - Sales clerks and salespersons, comidities, n.e.c.	18.7
1137 - Sales directors	12.5
9999 - Other occupations (bookkeepers, cashiers, receptionists, fabricating, assembling and repairing occupations: textile, fur and leather products, etc...	25.6

FIELD OF STUDY: **Humanities**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	162	100.0
Employed graduates	96	59.3
Unemployed graduates	54	33.3
Other graduates	12	7.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (96):	100.0
4161 - Library clerks	43.7
4169 - Library administators	12.5
9999 - Other occupations (law professionals n.e.c., librarians, archivists, secondary school teachers, teachers n.e.c, office clerks, etc...)	43.8

FIELD OF STUDY **Correctional and Protective Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	492	100.0
Employed graduates	348	70.7
Unemployed graduates	42	8.6
Other graduates	102	20.7

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (348):	100.0
6112 - Police officers, gouvernment	31.0
6115 - Guards and security guards	19.0
4161 - Library clerks	6.9
4199 - Clerks n.e.c.	3.5
8581 - Motor vehicle mechanics	3.4
9317 - Packaging occupations n.e.c.	3.4
9999 - Other occupations (college teachers, secretaries and stenographers, cashiers, messengers, guards, police officiers, etc...)	32.8

FIELD OF STUDY: **Social Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	294	100.0
Employed graduates	192	65.3
Unemployed graduates	36	12.2
Other graduates	66	22.5

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (192):	100.0
6147 - Child-care occupations	21.9
2731 - Elementary and kindergarten teachers	21.7
2795 - Teachers	12.5
3137 - Physiotherapists	12.5
2399 - Occupations in social sciences	6.2
9999 - Other occupations (social workers, health care technicians, medical laboratory technicians, janitors, etc...)	25.2

FIELD OF STUDY **Recreation and Sports**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	114	100.0
Employed graduates	78	68.4
Unemployed graduates	18	15.8
Other graduates	18	15.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (78):	100.0
2333 - Occupations in welfare and community services	23.1
1136 - Personnel administrators	15.4
9999 - Other occupations (administrators n.e.c., receptionists, salespersons n.e.c., moulding occupations: plastic, etc...)	61.5

FIELD OF STUDY **Teaching and Counselling Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	607	100.0
Employed graduates	415	68.4
Unemployed graduates	78	12.8
Other graduates	114	18.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (415):	100.0
2795 - Teachers n.e.c.	36.4
2731 - Elementary and kindergarten teachers	14.5
2333 - Occupations in welfare and community services	11.5
6147 - Child-care occupations	36.9
9999 - Other occupations (bookkeepers, cashiers, nursing assistants, teachers n.e.c., secondary school teachers, systems analysts, etc...)	

FIELD OF STUDY **Other Social Sciences**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	246	100.0
Employed graduates	174	70.7
Unemployed graduates	36	14.6
Other graduates	36	14.7

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (174):	100.0
2331 - Social workers	37.9
2333 - Occupations in welfare and community services	17.2
4111 - Secretaries and stenographers	10.3
9999 - Other occupations (services administrators, purchasing officers, systems analysts, teachers n.e.c., cashiers, office clerks, waitresses and hostesses, etc...)	34.6

FIELD OF STUDY: **Management and Administration (Business and Commerce)**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	45	100.0
Employed graduates	39	86.7
Unemployed graduates	-	-
Other graduates	6	13.3

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (39):	100.0
4133 - Cashiers	43.6
5197 - Wholesale and retail buyers	20.5
8258 - Labourers: pulp and paper	20.5
4131 - Bookkeepers	15.4

FIELD OF STUDY: **Other Financial Management Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 879	100.0
Employed graduates	1 306	65.9
Unemployed graduates	200	10.6
Other graduates	373	19.9

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (1 306):	100.0
4131 - Bookkeepers	20.0
1171 - Financial officers	17.1
4111 - Secretaries and stenographers	7.3
4133 - Cashiers	7.3
1179 - Occupations related to management and administration	6.0
4199 - Other clerical occupations	5.3
4197 - General office clerks	4.0
1137 - Sales directors	2.6
4171 - Receptionists	2.6
5135 - Sales clerks and salespersons	1.3
1149 - Other managers and administrators n.e.c.	1.3
2183 - Systems analysts	1.3
3135 - Nursing assistants	1.3
4155 - Stock clerks	1.3
5133 - Commercial travellers	1.3
6125 - Waitresses and hostesses	1.3
7195 - Nursery workers	1.3
9999 - Other occupations (purchasing directors, personnel officers, teachers n.e.c, punched-card equipment operators, service station attendants, motor vehicle mechanics, painters, packaging occupations n.e.c., etc...)	16.1

FIELD OF STUDY: **Other Management and Administration Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	205	100.0
Employed graduates	164	80.0
Unemployed graduates	8	3.9
Other graduates	33	16.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (164):	100.0
1179 - Occupations related to management and administration	10.4
4111 - Secretaries and stenographers	10.4
4131 - Bookkeepers	10.4
4133 - Cashiers	10.4
9999 - Other occupations (medical administrators, office clerks, sales managers, carpenters, train foremen, etc...)	58.4

FIELD OF STUDY **Marketing**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	325	100.0
Employed graduates	204	62.8
Unemployed graduates	21	6.1
Other graduates	100	31.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (204):	100.0
5135 - Sales clerks and salespersons	14.2
1137 - Sales directors	6.9
1179 - Occupations related to management and administration n.e.c.	6.9
4111 - Secretaries and stenographers	6.9
4133 - Cashiers	6.9
5133 - Commercial travellers	6.9
9999 - Other occupations (finance directors, purchasing officers, producers and directors, stock clerks, insurance agents, etc...)	51.3

Graduate Survey (1984) - Quebec Region — Community College Level

FIELD OF STUDY: **Other Sales Services and Commerce**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	56	100.0
Employed graduates	42	75.0
Unemployed graduates	14	25.0
Other graduates	-	-

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (42):	100.0
4135 - Finance clerks	33.3
1135 - Finance directors	16.7
2183 - Systems analysts	16.7
4111 - Secretaries and stenographers	16.7
5171 - Insurance agents	16.6

FIELD OF STUDY **Secretarial Arts**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 575	100.0
Employed graduates	1 183	75.1
Unemployed graduates	197	12.5
Other graduates	195	12.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (1 183):	100.0
4111 - Secretaries and stenographers	69.9
4131 - Bookkeepers	5.5
4143 - Punched-card equipment operators	3.6
1149 - Managers and administrators n.e.c.	3.0
4171 - Receptionists	3.0
4197 - Office clerks	2.5
4137 - Statistical clerks	1.2
4199 - Clerks n.e.c.	1.2
5135 - Sales clerks and salespersons	1.2
1175 - Purchasing officers	1.1
9999 - Other occupations (cashiers, bookkeepers, library clerks, fabricating and assembling occupations: electronic equipment, labourers: clothing, etc...)	7.8

FIELD OF STUDY **Mathematics and Data Processing**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	709	100.0
Employed graduates	532	75.0
Unemployed graduates	74	10.5
Other graduates	103	14.5

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (532):	100.0
2183 - Systems analysts	82.3
4143 - Punched-card equipment operators	4.3
4133 - Cashiers	2.1
9999 - Other occupations (finance officers, other occupations in mathematics n.e.c., translators and interpreters, secretaries and stenographers, janitors, labourers: services, installing and repairing occupations: electronic equipment n.e.c., etc...)	11.2

FIELD OF STUDY **Nursing Sciences**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 372	100.0
Employed graduates	1 103	80.4
Unemployed graduates	79	5.8
Other graduates	190	13.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (1 103):	100.0
3131 - Nurses	89.0
3134 - Nursing assistants	2.0
9999 - Other occupations (social sciences directors, nursing supervisors, orderlies, nursing assistants, library clerks, sales clerks and salespersons n.e.c., etc...)	9.0

FIELD OF STUDY **Medical Laboratory Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	145	100.0
Employed graduates	123	84.8
Unemployed graduates	11	7.6
Other graduates	11	7.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (123):	100.0
3156 - Medical laboratory technicians	64.4
3158 - Dental hygienists	8.9
4111 - Secretaries and stenographers	8.9
6191 - Janitors	8.9
8781 - Carpenters	8.9

FIELD OF STUDY **Radiography, Radiology and Nuclear Medecine Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	155	100.0
Employed graduates	111	71.6
Unemployed graduates	22	14.2
Other graduates	22	14.2

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (111):	100.0
3155 - Radiology technicians	60.4
2183 - Systems analysts	9.9
3137 - Physiotherapists	9.9
3156 - Medical Laboratory technicians	9.9
6121 - Chefs and cooks	9.9

FIELD OF STUDY **Dental Assistant Technology**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	189	100.0
Employed graduates	167	88.4
Unemployed graduates	-	-
Other graduates	22	11.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (167):	100.0
3158 - Dental hygienists	67.1
3157 - Denturists	13.2
3161 - Dental laboratory technicians	13.2
6191 - Janitors	6.5

FIELD OF STUDY: **Other Diagnostic and Treatment technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	89	100.0
Employed graduates	67	75.3
Unemployed graduates	11	12.4
Other graduates	11	12.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (67):	100.0
3136 - Audio therapists	16.4
3162 - Respiratory technicians	83.6

Graduate Survey (1984) - Quebec Region — Community College Level

FIELD OF STUDY: **Other Health Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	187	100.0
Employed graduates	132	70.6
Unemployed graduates	11	5.9
Other graduates	44	23.5

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (132):	100.0
2117 - Physical sciences technicians	16.7
2351 - Librarians and archivists	16.7
3152 - Dietitians	16.7
9999 - Other occupations (services administrators, secondary school teachers, nursing assistants, waitresses and hostesses, hairdressers, barbers, etc...)	49.9

FIELD OF STUDY **Chemical Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	168	100.0
Employed graduates	115	68.5
Unemployed graduates	16	14.9
Other graduates	37	16.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (115):	100.0
2117 - Physical sciences technicians	40.0
2111 - Chemists	21.7
2135 - Biological technicians	7.0
2145 - Industrial engineers	7.0
2719 - University teachers n.e.c.	7.0
9999 - Other occupations (medical laboratory technicians, production directors, foremen: textiles, cutter: plastic manufacturing, etc...)	17.3

Graduate Survey (1984) - Quebec Region — Community College Level

FIELD OF STUDY: **Electrical and Electronic Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 070	100.0
Employed graduates	693	64.8
Unemployed graduates	126	11.8
Other graduates	251	23.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (693):	100.0
2165 - Engineering technicians	24.8
6125 - Waitresses and hostesses	4.9
8535 - Electronic installing occupations n.e.c.	4.9
2163 - Designers	4.9
8533 - Electrical equipment installing occupations	4.9
8537 - Radio and television repairers	4.0
8534 - Electronic equipment fabricating and assembling occupations	3.3
5133 - Commercial travellers	2.4
5135 - Sales clerks and salespersons	2.4
8584 - Industrial machinery mechanics	2.4
8585 - Business machine mechanics	2.4
8588 - Precision instrument mechanics	2.4
2799 - Other teachers n.e.c.	1.6
8599 - Other product fabricating, assembling and repairing occupations	1.6
8735 - Line repairer	1.6
9551 - Radio and television broadcasting equipment operators	1.6
9999 - Other occupations (government inspectors, mine labourers, pulp and papermaking occupations n.e.c., foremen: fabrication of electrical equipment, electrical equipment assembling occupations, electricians, electrical equipment inspectors, etc...)	25.7

FIELD OF STUDY **Transport Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	203	100.0
Employed graduates	109	54.0
Unemployed graduates	46	23.0
Other graduates	48	23.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (693):	100.0
8582 - Aircraft mechanics	22.9
8526 - Metal products production inspectors	11.0
9999 - Other occupations (mechanical engineers, engineering technicians, instructors n.e.c., clerks n.e.c, forest industry labourers, rolling mill operators, electrical equipment installing occupations, seaman: stockhold, motor transport operating occupations n.e.c., etc...)	

FIELD OF STUDY: **Other Mechanical Engineering Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	259	100.0
Employed graduates	190	75.4
Unemployed graduates	55	13.5
Other graduates	34	11.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (190):	100.0
8584 - Industrial machinery mechanics	22.1
8581 - Motor vehicle mechanics	12.7
5135 - Sales clerks and salespersons	7.8
8313 - Machinists	5.3
8526 - Metal products production inspectors	3.7
8541 - Cabinetmakers	3.7
8599 - Other product fabricating and repairing occupations n.e.c.	3.7
9313 - Dockers	3.7
2117 - Physical sciences technicians	3.3
9999 - Other occupations (administrators n.e.c., industrial engineers, mechanical engineers, designers, metal machining occupations, sheet metal workers, stamping machine operators, etc...)	34.0

FIELD OF STUDY: **General and Industrial Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	213	100.0
Employed graduates	160	75.1
Unemployed graduates	25	11.7
Other graduates	284	13.2

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (160):	100.0
2163 - Designers	25.3
2161 - Surveyors	21.6
2165 - Engineering technicians	7.5
4133 - Cashiers	5.6
8581 - Motor vehicle mechanics	3.8
9999 - Other occupations (geologists, supervisors: architecture and engineering, college teachers, photographers, office clerks, truck drivers, etc...)	36.2

Graduate Survey (1984) - Quebec Region — Community College Level

FIELD OF STUDY: **Agricultural and Other Primary Industries Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	345	100.0
Employed graduates	257	74.5
Unemployed graduates	48	13.9
Other graduates	40	11.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (257):	100.0
7199 - Other farming, horticultural and animal husbandry occupations n.e.c.	19.1
1116 - Government inspectors	7.7
2133 - Biologists	6.2
2135 - Biological technicians	6.2
1137 - Sales directors	4.7
2117 - Physical sciences technicians	4.7
5133 - Commercial travellers	4.7
2165 - Engineering technicians	3.1
3115 - Veterinarians	3.1
6115 - Guards and security guards	3.1
7183 - Livestock farm workers	3.1
9999 - Other occupations (farm administrators, agriculturists, medical laboratory technicians, cashiers, guides, livestock, farmers, food inspectors, etc...)	59.8

FIELD OF STUDY **Environmental and Conservation Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	96	100.0
Employed graduates	60	62.5
Unemployed graduates	28	29.2
Other graduates	8	8.3

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (60):	100.0
2164 - Engineering technicians	11.7
6115 - Guards and security guards	11.7
2135 - Biological technicians	10.0
3115 - Veterinarians	10.0
4131 - Bookkeepers	10.0
9999 - Other occupations (physical sciences technicians, architectural technicians, nursing assistants, radio and television repairers, construction foremen, etc...)	46.4

FIELD OF STUDY **Resource Processing Technologies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	257	100.0
Employed graduates	172	66.9
Unemployed graduates	49	17.1
Other graduates	36	14.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (172):	100.0
2135 - Biological technicians	18.6
7195 - Nursery workers	9.3
7510 - Forest foremen	9.3
2117 - Physical sciences technicians	7.0
2165 - Engineering technicians	5.0
9999 - Other occupations (administrators n.e.c., agriculturists, stock clerks, production clerks, food and beverage industry foremen, cabinetmakers, clothing inspectors, etc...)	49.0

FIELD OF STUDY **Architectural and Construction Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	657	100.0
Employed graduates	505	76.9
Unemployed graduates	73	11.1
Other graduates	79	12.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (505):	100.0
2163 - Designers	10.3
2165 - Engineering technicians	6.9
2164 - Architectural technicians	4.0
2143 - Civil engineers	6.1
2161 - Surveyors	5.5
1171 - Finance officers	4.8
2117 - Physical sciences technicians	4.0
2145 - Construction administrators	3.7
5135 - Sales clerks and salespersons	3.7
4131 - Bookkeepers	3.4
1116 - Government inspectors	2.6
8796 - Construction inspectors	2.6
4199 - Clerks n.e.c.	2.0
6125 - Waitresses and hostesses	2.0
8210 - Excavating foremen	2.0
8718 - Road workers	1.4
8731 - Smelting and refining workers	1.3
2141 - Architects	1.3
2147 - Mechanical engineers	1.2
9999 - Other occupations (sales directors, chemists, secretaries and stenographers, guards and security guards, cabinetmakers, dockers, welders, metal workers, etc...)	25.7

UNIVERSITY FIELDS OF STUDY

EDUCATION

- Elementary and secondary school teacher training
- Higher education, postsecondary school teacher training
- Preschool teacher training
- Non-teaching education (educational administration, curriculum development, test evaluation)
- Physical education
- Kinesiology, human kinetics, anthropokinetics
- Recreation

ARTS

- Music
- Fine arts
- Other performing arts (dance, dramatics, theatre, etc...)
- Applied arts (industrial design, physical art, drawing and design, engraving, photography, fashion, interior decorating, typography, lithography)

LANGUAGES

- English language and/or literature
- French language and/or literature
- Classics, classical studies, dead languages and literatures (Greek, Hebrew, Sanskrit)
- Other languages and literatures medieval languages, Slavic languages and/or literature, comparative literature)

HISTORY

- History (ancient, medieval, modern, history of a region, other)

LIBRARY SCIENCE

- Library science
- Other documentary sciences (maintenance of archives, museology, art gallery administration)

LINGUISTICS, TRANSLATION, INTERPRETATION

- Linguistics
- Translation and interpretation

OTHER MASS COMMUNICATION

- Other means of mass communication (film-making, radio and television, public relations
- Journalism

PHILOSOPHY AND THEOLOGY

- Philosophy
- Religious studies
- Theological studies

UNIVERSITY FIELDS OF STUDY

REGIONAL STUDIES

- Canadian studies
- Other regional studies

AMINISTRATION, COMMERCE, MANAGEMENT

- Commerce, management, business administration, studies in administrative sciences (accounting, finance, industrial relations, marketing, personnel management)
- Studies in specialized administration (public administration, administration of health care services, hotels, food services, etc...)

ECONOMICS

- Economics

GEOGRAPHY

- Geography

LAW

- Law and Jurisprudence

POLITICAL SCIENCE

- Political science

PSYCHOLOGY

- Psychology

SOCIOLOGY

- Sociology
- criminology

SOCIAL SERVICES AND SOCIAL WELFARE

- Social services and social welfare

OTHER SOCIAL SCIENCES

- Studies of the human environment
- Anthropology
- Archeology
- Military studies
- Other social services (training of day-care teachers)
- Demography

UNIVERSITY FIELDS OF STUDY

AGRICULTURAL AND BIOLOGICAL SCIENCES

- Animal science and plant science
- Soil sciences
- Other agriculture (agricultural microbiology, dairy sciences, parasitology and agricultural virology)
- Biology (genetics, microbiology)
- Veterinary sciences and medicine (including specialized veterinary sciences and medicine)
- Biochemistry
- Biophysics
- Studies in wildlife and fisheries
- Zoology
- Botany

ARCHITECTURE

- Architecture
- Landscape architecture

CHEMICAL ENGINEERING

- Chemical engineering

CIVIL ENGINEERING

- Civil engineering

ELECTRICAL ENGINEERING

- Electrical engineering

MECHANICAL ENGINEERING

- Mechanical engineering

OTHER ENGINEERING

- Aeornautic and aerospace engineering
- Systems engineering
- Industrial engineering
- Mining engineering
- Metallurgical engineering
- Other engineering (biomedical engineering, environmental engineering, rural engineering, petroleum engineering, etc...)
- General engineering

FORESTRY

- Forestry

DENTISTRY

- Dentristy
- Specialties in dentistry

UNIVERSITY FIELDS OF STUDY

NURSING

- Nursing

PHARMACY

- Pharmacy

MEDICINE

- Medicine
- Basic sciences in medicine (anatomy, biochemistry, endocrinology)
- Medical specialties (the study of allergies, dermatology, pediatrics, pneumology)
- Surgical specialties (heart surgery, orthopedics, urology, ophthalmology)

OTHER HEALTH SCIENCES

- Hearing and speech therapy
- Occupational therapy
- Physiotherapy
- Other therapy
- Parachemical sciences (microbiology, immunology, pathology)
- Optometry
- Medical laboratory sciences and technologies
- Other health care professions and occupations (art and medicine, dental hygiene)
- Epidemiology and public health

COMPUTER SCIENCE AND MATHEMATICS

- Computer science
- Mathematics (actuarial sciences, statistics)

OTHER PHYSICAL SCIENCES

- Chemistry
- Geology and related fields
- Physics (astronomy, aerospace, sciences, other physics)
- Metallurgy, materials science
- Meteorology (climatology, other meteorology)
- Oceanography and hydrology

FIELD OF STUDY: **Education, Teacher Training, Non-teaching Education, Physical Education**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	5 120	100.0
Employed graduates	2 269	44.3
Unemployed graduates	579	11.3
Other graduates	2 272	44.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (2 269):	100.0
2731 - Elementary and kindergarten teachers	34.8
2733 - Secondary school teachers	11.7
2795 - Teachers of exceptional students n.e.c.	9.1
2739 - Elementary and secondary school teachers n.e.c.	8.6
2333 - Occupations in welfare and community services	7.8
1179 - Administrators n.e.c.	2.0
1174 - Personnel officers	1.9
9999 - Other occupations (administrators in teaching, finance directors, school guidance counsellors, college teachers, instructors, graduate nurses, cashiers, library clerks, chefs and cooks, child care workers, construction n.e.c., etc...)	

FIELD OF STUDY: **Arts, Music, Fine Arts, Applied Arts**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	641	100.0
Employed graduates	258	40.3
Unemployed graduates	74	11.5
Other graduates	309	40.2

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (258):	100.0
2731 - Elementary and kindergarten teachers	19.0
4133 - Cashiers	12.4
2791 - College teachers	7.4
4171 - Receptionists	7.0
2733 - Secondary school teachers	6.2
9999 - Other occupations (child care workers, designers, sales clerks, n.e.c., advertising agents, etc...)	22.2

FIELD OF STUDY — **Languages: English, French, Other languages**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 015	100.0
Employed graduates	334	32.9
Unemployed graduates	163	16.1
Other graduates	518	51.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (334):	100.0
2733 - Secondary school teachers	14.7
2719 - University teaching and related occupations n.e.c.	10.5
4197 - Office clerks	10.2
2791 - College teachers	9.6
3351 - Writers and editors	6.6
2711 - Finance officers	5.4
1133 - Administrators in teaching	5.1
9999 - Other occupations (elementary and kindergarten teachers, library clerks, receptionists, patternmakers, etc...)	32.2

FIELD OF STUDY **History**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	460	100.0
Employed graduates	264	56.4
Unemployed graduates	87	18.9
Other graduates	109	23.7

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (264):	100.0
1133 - Administrators in teaching	12.1
2351 - Librarians and archivists	12.1
2319 - Occupations in social sciences	6.4
1171 - Finance officers	6.0
2719 - University teaching occupations n.e.c.	6.0
2731 - Elementary and kindergarten teachers	6.0
2733 - Secondary school teachers	6.0
3131 - Graduate nurses	6.0
3355 - Translators and interpreters	6.0
4111 - Secretaries and stenographers	6.0
5171 - Insurance agents	6.0
6125 - Waitresses and hostesses	6.0
6147 - Child care workers	6.0
9999 - Other occupations (mechanics, social services officers, etc...)	2.3

FIELD OF STUDY **Library Science**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	108	100.0
Employed graduates	87	80.6
Unemployed graduates	5	4.6
Other graduates	16	14.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates ( ):	100.0
2351 - Librarians and archivists	73.6
2793 - Secondary school teachers, supply n.e.c.	9.2
1132 - Social sciences directors	5.7
9999 - Other occupations (supervisors, library clerks, library administrators n.e.c, securities trader, etc...)	11.5

FIELD OF STUDY: **Linguistics, translation, interpretation**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	627	100.0
Employed graduates	389	62.0
Unemployed graduates	60	9.6
Other graduates	178	28.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (389):	100.0
3355 - Translators and interpreters	38.8
4111 - Secretaries and stenographers	12.6
5165 - Sales occupations n.e.c.	8.2
9999 - Other occupations (sales directors, writers and editors, electronic equipment operators, insurance agents, brake mechanics, etc...)	40.4

FIELD OF STUDY: **Other Mass Communication**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	362	100.0
Employed graduates	227	62.7
Unemployed graduates	52	14.4
Other graduates	83	22.9

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (227):	100.0
3351 - Writers and editors	14.1
2733 - Secondary school teachers	7.7
9999 - Other ccupations (sales directors, illustrators, composers, occupations in the arts n.e.c., advertising agents, secretaries and stenographers, etc...)	

FIELD OF STUDY **Philosophy and Theology**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	553	100.0
Employed graduates	223	42.1
Unemployed graduates	111	20.1
Other graduates	209	37.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (233):	100.0
2511 - Ministers of religion	21.4
2793 - Secondary school teachers, supply n.e.c.	9.4
2733 - Secondary school teachers	8.6
1136 - Personnel administrators	7.7
5171 - Insurance agents	7.7
9999 - Other occupations (finance officers, personnel officers, graduate nurses, production clerks, etc...)	45.5

Graduate Survey (1984) - Quebec Region — College Level

FIELD OF STUDY: **Regional Studies**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	130	100.0
Employed graduates	58	44.6
Unemployed graduates	35	26.9
Other graduates	37	28.5

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (58):	100.0
3351 - Writers and editors	60.4
2351 - Librarians and archivists	34.5
9999 - Other occupations (labourers - paper)	5.1

FIELD OF STUDY: **Administration, Commerce, Management**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	4 934	100.0
Employed graduates	3 128	63.4
Unemployed graduates	361	7.3
Other graduates	1 445	29.3

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (3 128):	100.0
1171 - Finance officers	31.7
2183 - Systems analysts	11.0
4131 - Bookkeepers	7.0
1137 - Sales directors	4.8
1135 - Finance directors	4.3
2311 - Economists	3.5
1179 - Administrators n.e.c.	2.8
1143 - Production administrators	2.7
1174 - Personnel officers	2.2
4143 - Electronic equipment operators	2.1
1144 - Administrators n.e.c.	2.0
5133 - Commercial travellers	2.0
4197 - Office clerks	1.8
5177 - Real estate agents	1.8
9999 - Other occupations (purchasing directors, university teachers, college teachers, secretaries and stenographers, food industries foremen, motor vehicle mechanics, production clerks, etc...)	22.1

FIELD OF STUDY **Economics**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	487	100.0
Employed graduates	298	61.2
Unemployed graduates	-	-
Other graduates	189	38.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (298):	100.0
1171 - Finance officers	15.0
1136 - Personnel administrators	14.1
2791 - College teachers	8.1
2311 - Economists	4.4
9999 - Other occupations (dentists, clerks, janitors, warehouse equipment operators n.e.c., sales managers, agriculturists, etc...)	58.4

FIELD OF STUDY **Geography**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	326	100.0
Employed graduates	170	52.2
Unemployed graduates	27	8.3
Other graduates	129	39.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (170):	100.0
2319 - Occupations in social sciences	26.5
2711 - University teachers	11.2
1179 - Administrators n.e.c.	10.0
4131 - Bookkeepers	10.0
4193 - Travel agents	10.0
7513 - Timber cutting occupations	10.0
8259 - Pulp and papermaking occupations	10.0
9171 - Bus drivers	10.0
1149 - Administrators n.e.c.	1.8
9999 - Other occupations (university teachers, etc...)	

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY: Law

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	802	100.0
Employed graduates	498	62.1
Unemployed graduates	89	11.1
Other graduates	215	26.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (498):	100.0
2343 - Lawyers and notaries	94.6
9999 - Other occupations (administrators, university teachers, etc...)	5.4

FIELD OF STUDY **Political Science**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	426	100.0
Employed graduates	147	34.1
Unemployed graduates	38	8.9
Other graduates	241	56.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (147):	100.0
5135 - Sales clerks and salespersons n.e.c.	36.0
1179 - Administrators n.e.c.	23.8
2351 - Librarians and archivists	11.6
4133 - Cashiers	11.6
9999 - Other occupations (college teachers, clerks n.e.c., lawyers and notaries, etc...)	17.0

FIELD OF STUDY: **Psychology**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	945	100.0
Employed graduates	414	43.8
Unemployed graduates	107	11.3
Other graduates	424	44.9

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (414):	100.0
2315 - Psychologists	24.4
1144 - Administrators n.e.c.	9.2
2733 - Secondary school teachers	5.8
9999 - Other occupations (transport administrators, school guidance counsellors, teachers n.e.c., doctors, graduate nurses, electronic equipment operators, insurance agents, waitresses and hostesses, etc...)	60.6

FIELD OF STUDY **Sociology**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	589	100.0
Employed graduates	268	45.5
Unemployed graduates	57	9.7
Other graduates	264	44.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (268):	100.0
1171 - Finance officers	19.8
2795 - Teachers n.e.c.	7.5
1179 - Administrators n.e.c.	6.3
2157 - Community planners	6.3
2333 - Occupations in welfare and community services	6.3
2349 - Occupations in law and jurisprudence n.e.c.	6.3
3131 - Graduate nurses	6.3
4111 - Secretaries and stenographers	6.3
4197 - Office clerks	6.3
6147 - Child care workers	6.3
9999 - Other occupations (medical administrators, college teachers, medical laboratory technicians, hotel clerks, collectors, etc...)	22.3

FIELD OF STUDY **Social and Welfare Services**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	405	100.0
Employed graduates	197	48.6
Unemployed graduates	17	4.2
Other graduates	191	47.2

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (197):	100.0
2331 - Social workers	48.2
2333 - Occupations in welfare and community services	30.0
1149 - Administrators n.e.c.	8.6
4111 - Secretaries and stenographers	8.6
9999 - Other occupations (sociologists, medical laboratory technicians, trainers, etc...)	4.6

FIELD OF STUDY **Other Social Sciences**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	335	100.0
Employed graduates	233	69.5
Unemployed graduates	27	8.1
Other graduates	75	22.4

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (233):	100.0
2157 - Community planners	17.6
4111 - Secretaries and stenographers	15.9
2311 - Economists	10.3
1171 - Finance officers	8.6
2333 - Occupations in welfare and community services	7.3
2353 - Library technicians	4.7
4143 - Electronic equipment operators	3.0
6144 - Guides	3.0
9999 - Other occupations (directors general, personnel officers, lawyers, notaries, clerks n.e.c., etc...)	29.6

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY: **Agricultural, Biological and Veterinary Sciences**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	1 125	100.0
Employed graduates	967	86.0
Unemployed graduates	126	11.2
Other graduates	32	2.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates 967):	100.0
3152 - Dietitians	5.0
2719 - University teachers n.e.c.	4.1
3156 - Laboratory technicians	2.8
3115 - Veterinarians	2.4
2131 - Agriculturists	2.4
9999 - Other occupations (administrators n.e.c., personnel administrators, chemists, biologists, college teachers, bookkeepers, nursery workers, insurance agents, etc...)	83.3

FIELD OF STUDY **Architecture**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	164	100.0
Employed graduates	131	79.9
Unemployed graduates	-	-
Other graduates	33	20.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (131):	100.0
2141 - Architects	54.2
2161 - Surveyors	15.2
2163 - Designers	15.2
9999 - Other occupations (non-governmental inspectors, civil engineers, etc...)	16.4

FIELD OF STUDY **Chemical Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	102	100.0
Employed graduates	72	70.6
Unemployed graduates	10	9.8
Other graduates	40	19.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (72):	100.0
2142 - Chemical engineers	27.8
9999 - Other occupations (chemists, systems analysts, college teachers, fabricating and repairing inspectors n.e.c., stationary equipment operators, inspectors, inspectors in the fabricating, assembling and repairing of products n.e.c., etc...)	

FIELD OF STUDY **Civil Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	259	100.0
Employed graduates	149	53.9
Unemployed graduates	33	12.3
Other graduates	77	33.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (149):	100.0
2143 - Civil engineers	55.2
2159 - Engineers	10.3
2183 - Systems analysts	8.3
9999 - Other occupations (natural sciences directors, administrators n.e.c., organization and methods analysts, engineers, electricians, stationary equipment operators, etc...)	26.2

FIELD OF STUDY **Electrical Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	153	100.0
Employed graduates	127	83.0
Unemployed graduates	-	17.0
Other graduates	26	-

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (127):	100.0
2144 - Electrical engineers	44.0
9999 - Other occupations (chemical engineers, designers, university teachers n.e.c., college teachers, commercial travellers, mine foremen, etc...)	55.0

FIELD OF STUDY **Mechanical Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	393	100.0
Employed graduates	238	60.6
Unemployed graduates	20	5.1
Other graduates	135	34.3

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (238):	100.0
2147 - Mechanical engineers	30.3
2145 - Industrial engineers	21.4
2159 - Professional engineers n.e.c.	5.0
9999 - Other occupations (production administrators, organization and methods analysts, metallurgical engineers, systems analysts, occupations in clay, glass and stone forming, air pilots, navigators and flight engineers, etc...)	43.3

FIELD OF STUDY **Other Engineering**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	764	100.0
Employed graduates	482	63.1
Unemployed graduates	38	5.0
Other graduates	244	31.9

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (482):	100.0
2144 - Electrical engineers	20.7
2143 - Civil engineers	11.6
2145 - Industrial engineers	6.9
2183 - Systems analysts	6.9
2151 - Metallurgical engineers	6.2
2153 - Mining engineers	4.8
3313 - Designers	3.5
9999 - Other occupations (production administrators, construction administrators, mine foremen, carpenters, truck drivers, surveyors, college teachers, agricultural engineers, geologists, petroleum engineers, etc...)	39.4

FIELD OF STUDY **Forestry**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	127	100.0
Employed graduates	102	80.3
Unemployed graduates	20	15.8
Other graduates	5	3.9

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (102):	100.0
9999 - Other occupations (sales directors, administrators n.e.c., trainers, salespersons, food preparation occupations, secondary school teachers, engineers n.e.c., agricultural and biological sciences occupations n.e.c., etc...)	100.0

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY: **Dentistry**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	110	100.0
Employed graduates	82	74.5
Unemployed graduates	7	6.4
Other graduates	21	19.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (82):	100.0
3113 - Dentists	100.0

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY: **Nursing**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	356	100.0
Employed graduates	211	59.3
Unemployed graduates	14	3.9
Other graduates	131	36.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (211):	100.0
3131 - Graduate nurses	80.3
2791 - University teachers	3.8
1132 - Social sciences directors	3.3
3130 - Nursing supervisors	3.3
9999 - Other occupations (administrators in medicine and health, personnel administrators, college teachers, medical laboratory technicians, etc...)	9.3

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY: **Pharmacy**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	186	100.0
Employed graduates	144	77.4
Unemployed graduates	14	7.5
Other graduates	28	15.1

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (144):	100.0
3151 - Pharmacists	98.6
5130 - Sales managers	1.4

FIELD OF STUDY **Medicine**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	931	100.0
Employed graduates	660	70.9
Unemployed graduates	49	5.3
Other graduates	222	28.8

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (660):	100.0
3111 - Medicine	88.0
9999 - Other occupations (administrators in medicine and health, graduate nurses, nursing assistants, biological technicians, sales representatives, etc...)	12.0

FIELD OF STUDY — **Other Health Care Occupations**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	378	100.0
Employed graduates	284	75.1
Unemployed graduates	7	1.9
Other graduates	87	23.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (284):	100.0
3137 - Physiotherapists	43.3
3138 - Occupational therapists	18.3
3111 - Physicians	15.2
4153 - Optometrists	4.9
3154 - Dispensing opticians	4.9
3119 - Health care technicians n.e.c.	4.9
9999 - Other occupations (social sciences directors, biologists, psychologists, social workers, college teachers, dentists nursing supervisors, securities traders, etc...)	8.5

Graduate Survey (1984) - Quebec Region — University Level

FIELD OF STUDY **Computer Science and Mathematics**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	731	100.0
Employed graduates	455	62.2
Unemployed graduates	35	4.8
Other graduates	241	33.0

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (455):	100.0
2183 - Systems analysts	64.4
2181 - Mathematicians, statisticians and actuaries	7.2
2791 - College teachers	6.1
2711 - University teachers	3.1
4131 - Bookkeepers	2.9
9999 - Other occupations (directors general, production administrators, transport administrators, chemical engineers, electrical engineers, etc...)	16.3

FIELD OF STUDY **Other Physical Sciences**

STATUS OF 1982 GRADUATES TWO YEARS AFTER GRADUATION		PER CENT (%) DISTRIBUTION
Total graduates	336	100.0
Employed graduates	138	41.1
Unemployed graduates	48	14.3
Other graduates	150	44.6

OCCUPATION OF EMPLOYED GRADUATES	PER CENT (%) DISTRIBUTION
Employed graduates (138):	100.0
2719 - University teachers n.e.c.	16.0
2112 - Geologists	14.5
2117 - Physical sciences technicians	12.3
2111 - Chemists	7.2
2183 - Systems analysts, computer programmers	7.2
2114 - Meteorologists	5.8
9999 - Other occupations (trainers, commercial travellers, engineering technicians, biologists, receptionists, college teachers, etc...)	37.0

PART II

Occupational Outlook to 1993

GENERAL MANAGERS AND OTHER SENIOR OFFICIALS

1130

Examples: General Sales and Advertising Manager, Managing Director, Division Manager, Executive Director

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
25 161	27 446	2 285	3 530	5 815

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
121	-	1 026	1 147

* Competition Index: 0.20

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.14	1	0.72
2	2.11	2	3.60
3	10.36	3	6.47
4	3.79	4	5.75
5	1.96	5	2.88
6	76.06	6	77.70
7	1.88	7	1.44
8	0.76	8	0.72
9	0.94	9	0.72

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	5.3%	Under 25 years:	1.3%	Full-time:	98.0%
Males:	94.7%	Over 54 years:	20.6%	Part-time:	2.0%

Industry Concentration: Jobs in this occupational group are concentrated in the trade and service sectors.

Trends: Current forecasts predict above-average employment growth for these occupations. Competition will remain fierce, however. New recruits will come not only from the education system and the present pool of jobless in the group (estimated above), but also from other occupational groups occupational mobility being the main source of labour supply for these occupations. Most of these jobs are not starting positions, but positions to which people are promoted after several years' experience in related technical and professional fields. The increasing emphasis being placed on sales and marketing functions may be a stimulus to growth in this occupational group. The combined effects of further government regulation, foreign competition, environmental concerns and greater public awareness may work to the advantage of business management occupations.

Market Requirements: Technical and professional experience is in demand. Employers favour experience acquired in an industry similar to theirs. New candidates must have a university degree and sometimes a diploma in business administration. Bilingualism is an asset.

Examples: Data Processing and Systems Analysis Manager, Geochemical Manager, Geological Manager, Mathematical Services Manager

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 398	1 541	143		307	450

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
152	222	434	808

* Competition Index: 1.80

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	-	1	1.35
2	1.36	2	5.41
3	7.07	3	8.11
4	3.06	4	1.35
5	1.56	5	-
6	85.03	6	78.38
7	1.36	7	2.70
8	0.20	8	1.35
9	0.34	9	1.35

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	4.2%	Under 25 years:	3.5%	Full-time:	100.0%
Males:	95.8%	Over 54 years:	14.5%	Part-time:	0.0%

Industry Concentration: While chiefly concentrated in the business services and public administration sectors, jobs in this occupational group are also found in various manufacturing industries, such as electrical products, telecommunications equipment and aircraft manufacturing, as well as in the transportation, electrical power and education sectors.

Trends: Above-average employment growth is forecast for these occupations. The competition index is high, however, indicating that it will not be easy for new candidates to find jobs. Mobility from other occupational groups constitutes the main source of labour supply, with the education system and the current pool of jobless also adding some candidates. Most of these jobs are not starting positions, but positions to which people are promoted after several years' experience in related technical and professional fields. Although employment prospects are favourable, competition should be stiff. In data processing, demand for managers will be weaker than that for junior positions such as systems analysts. The budgets allocated to data processing departments continue to grow, and managers in these fields are having to acquire skills in cost control and improvement of productivity and servicing. Demand for managers in engineering and architecture is linked to the level of capital spending, chiefly in the industrial sector. The construction industry in Quebec should be buoyed by sustained growth in renovations and continued investment in water purification

projects and some industrial facilities. The number of government positions in these occupations (traffic engineering, oceanography, etc) is unlikely to increase owing to budget restrictions. Demand for life sciences managers is expected to increase in the pharmaceutical sector because of new legislation governing patents.

Market Requirements: Experience in technical and professional fields is sought. For all managers, knowledge of computer systems is an asset and bilingualism is often required.

MANAGEMENT OCCUPATIONS, SOCIAL SCIENCES AND RELATED FIELDS

Examples: Chief Librarian, Recreation Centre Director, Art Gallery Director, Community Home Superintendent, Community Centre Director

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
2 801	3 103	302	526	828

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
52	214	391	657

* Competition Index: 0.79

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.91	1	3.33
2	4.30	2	1.67
3	14.08	3	11.67
4	4.33	4	3.33
5	2.55	5	3.33
6	64.69	6	68.33
7	3.70	7	5.60
8	1.12	8	1.67
9	1.01	9	1.67

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	49.9%	Under 25 years:	7.5%	Full-time:	97.6%
Males:	50.1%	Over 54 years:	12.3%	Part-time:	2.4%

Industry Concentration: Most jobs in this occupational group are in the health/welfare and education services sectors.

Trends: Below-average employment growth is forecast for these occupations. The competition index points to favourable job prospects. Nonetheless, competition will be tough: labour supply from other occupational groups will make it more difficult for new candidates to find jobs since several years' experience are required for most positions. These occupations are sensitive to shifts in government spending policies, and current budget restrictions will dampen growth in hiring.

Market Requirements: Experience in related technical and professional fields is sought. Bilingualism is often required.

1133 ADMINISTRATORS IN TEACHING AND RELATED FIELDS

Examples: Principal, Business College Proprietor, Registrar, University Department Head, Educational Director

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
10 025	10 309	284	2 098	2 382

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
377	-	1 355	1 732

° Competition Index: 0.73

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.78	1	3.33
2	3.92	2	5.83
3	17.06	3	13.33
4	4.68	4	5.83
5	4.03	5	5.00
6	57.60	6	63.33
7	4.13	7	3.33
8	1.73	8	0
9	2.08	9	0

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	27.1%	Under 25 years:	1.2%	Full-time:	98.2%
Males:	72.9%	Over 54 years:	11.8%	Part-time:	1.8%

Industry Concentration: Virtually all these jobs are in the education services sector.

Trends: Above-average employment growth is forecast. The outlook for the short and medium term is for slow growth, however, as a result of additional budget cuts announced for the next few years. Demand in this occupational group is particularly sensitive to changing demographic conditions, with the number of administrators being determined by student enrolment and teaching positions. Lower enrolment at the secondary level has produced an oversupply of teachers. The job market thus looks less favourable for administrators in this area.

Market Requirements: Experience in the relevant field is often required.

ADMINISTRATORS IN MEDICINE AND HEALTH

Examples: Clinical Director, Director of Rehabilitation, First Aid Director, Nursing Director, Nutrition/Dietetics Director, Hospital Administrator

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
2 617	2 983	366		341	707

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
113	258	327	698

* Competition Index: 0.99

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.26	1	0.00
2	3.02	2	0.00
3	16.23	3	14.29
4	6.27	4	3.57
5	4.66	5	7.14
6	56.73	6	71.43
7	4.89	7	0.00
8	1.83	8	3.57
9	1.12	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 44.0%
Males: 56.0%

Age Composition (1981)
Under 25 years: 1.4%
Over 54 years: 14.4%

Status Composition (1981)
Full-time: 96.8%
Part-time: 3.2%

Industry Concentration: These occupations are concentrated in the health/welfare sector.

Trends: Below-average employment growth is forecast for these occupations, as the general outlook in the health/welfare sector is not very promising. The competition index points to a rather closed market for this occupational group, which remain particularly sensitive to future government expenditure policies. Best prospects lie in institutions other than acute-care hospitals: rehabilitation homes, chronic-care institutions, community health and social service centres. With new technological developments, there is a move toward new programs such as day surgery, home care and day care. These trends may increase the demand for personnel to administer these services.

Market Requirements: Previous experience in the health field is often required. Many of these occupations develop as a result of career and occupational mobility. Geographic mobility is also an important factor since demand will be strong in remote areas where it is generally difficult to attract qualified and experienced people.

1135 FINANCIAL MANAGEMENT OCCUPATIONS

Examples: Bank Director, Loan and Credit Manager, Controller, Vice-President Finance, Treasurer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
13 665	16 396	2 731		2 097	4 828

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
366	252	1 912	2 530

* Competition Index: 0.52

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.46	1	2.96
2	2.50	2	1.82
3	13.20	3	15.26
4	3.89	4	3.64
5	2.74	5	3.19
6	69.45	6	69.25
7	2.43	7	2.51
8	1.45	8	0.68
9	0.88	9	0.68

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	21.0%	Under 25 years:	5.3%	Full-time:	48.3%
Males:	79.0%	Over 54 years:	8.4%	Part-time:	51.7%

Industry Concentration: These occupations are concentrated in the finance sector, particularly in banking.

Trends: Employment growth in this group should surpass the Quebec average, and prospects generally seem good. The expansion of corporate financial and auditing controls may improve the outlook for financial managers. In banking, demand for these occupations should increase as the trend to move head office activities to Toronto slows, trust companies continue to grow, and new foreign banks set up operations here. The duties of financial managers in banking will become more diversified. When commercial lending was reorganized, these managers had to focus on providing business services. Now, as personal credit operations expand and new credit programs are introduced (such as the automatic line of credit), the responsibilities of financial managers will broaden to take in personal credit services.

Market Requirements: Generally speaking, these positions are reached after several years' experience in related professional and technical fields. Candidates with university degrees in business administration and finance are in greater demand than candidates who have only community college diplomas. As data processing technology takes over routine accounting functions, a good knowledge of computers is an asset. Bilingualism is also important, and financial managers will have to develop expertise in operational planning.

PERSONNEL AND INDUSTRIAL RELATIONS MANAGEMENT OCCUPATIONS

Examples: Manager of Personnel Department, Employment Manager, Labour Relations Director, Personnel Training Manager

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
9 686	10 697	1 011	1 490	2 501

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
929	311	977	2 217

- Competition Index: 0.87

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.42	1.81
2	3.29	3.17
3	13.98	19.00
4	4.30	4.98
5	2.05	5.43
6	68.87	60.18
7	2.45	1.81
8	1.31	2.71
9	1.32	0.96

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 26.4%
Males: 73.6%

Age Composition (1981)
Under 25 years: 6.1%
Over 54 years: 10.8%

Status Composition (1981)
Full-time: 97,7%
Part-time: 2,3%

Industry Concentration: These occupations are concentrated in the public administration, finance and miscellaneous services sectors.

Trends: Employment should grow at a rate close to the average, with competition remaining strong for jobs paying more than $50,000 a year. Experience in collective bargaining is required for more senior positions, even in non-unionized companies. Job openings will be more limited for managers who have experience in only one field; broad experience, particularly in industrial relations, will be in demand, as well as knowledge in occupational health and safety, and employee development and training.

Market Requirements: Most of these positions require several years' experience. Minimum qualifications are a community college diploma in administration, but employers are looking more and more for candidates with university degrees. Bilingualism is an asset.

1137 SALES AND ADVERTISING MANAGEMENT OCCUPATIONS

Examples: Advertising Manager, Public Relations Officer, District Sales Manager, Marketing Manager, Sales Director, Public Relations Manager, Store Manager

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
45 686	51 395	5 709		7 264	12 973

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
669	1 267	3 080	5 016

* Competition Index: 0.39

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.01	1	1.63
2	2.73	2	1.38
3	12.72	3	15.00
4	4.83	4	4.13
5	3.02	5	1.88
6	69.60	6	73.63
7	1.98	7	1.25
8	0.87	8	0.88
9	1.24	9	0.25

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	18.6%	Under 25 years:	8.0%	Full-time:	97.1%
Males:	81.4%	Over 54 years:	11.4%	Part-time:	2.9%

Industry Concentration: These occupations are concentrated in the wholesale and retail trade sectors.

Trends: Above-average employment growth is forecast, and the general outlook is favourable. The introduction of automated inventory control and the computerization of sales operations means that sales and advertising managers must be familiar with information systems and be able to analyse the data they receive from these systems. Demand will be stronger for people with experience in sales management and marketing than for people whose experience is solely in production management.

Market Requirements: A community college diploma in business administration is the minimum, with a university degree in the field often being required. Experience in sales is often sought, as well as good communications and management skills. For occupations involved in the selling of technical products, specialized knowledge is a definite asset. The normal working week is 35 to 40 hours, but overtime on evenings and weekends is required periodically.

PURCHASING MANAGEMENT OCCUPATIONS

Examples: Purchasing Officer, Building Supplies Purchasing Manager, Retail Trade Purchasing Manager

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
2 175	2 422	247	351	598

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
61	108	25	194

- Competition Index: 0.32

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.93	0.00
2	2.74	2.67
3	11.43	12.00
4	3.98	14.67
5	2.31	2.67
6	73.29	65.33
7	2.53	1.33
8	0.90	0.00
9	90.90	1.33

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 14.9%
Males: 85.1%

Age Composition (1981)
Under 25 years: 4.9%
Over 54 years: 15.0%

Status Composition (1981)
Full-time: 98.3%
Part-time: 1.7%

Industry Concentration: These occupations are concentrated in the wholesale and retail trade sectors.

Trends: Employment is expected to grow at a rate slightly above the average. Overall prospects for the group are good. The expansion of computer technology to meet growing information needs is changing the duties of purchasing managers. Medium- and long-term forecasting and strategic planning are becoming more and more important, particularly with regard to optimum inventory control. Increasing emphasis is being placed on negotiating skills and the supplier performance aspects of purchasing.

Market Requirements: Experience in related technical and professional fields is sought as well as specific personal qualities such as ability to work in a team, a sense of dialogue and co-operation, and a well-balanced personality. Bilingualism is an asset.

1142 SERVICES MANAGEMENT OCCUPATIONS

Examples: Hotel Manager, Restaurant Manager, Labour Union Leader, Laundry and Dry Cleaning Manager, Janitorial Services Manager

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
12 146	14 496	2 350		2 219	4 569

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
78	664	821	1 563

* Competition Index: 0.34

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.43	1	3.26
2	3.94	2	0.00
3	13.25	3	19.87
4	5.76	4	11.09
5	4.42	5	0.00
6	63.11	6	71.74
7	2.74	7	6.52
8	1.57	8	4.35
9	1.78	9	2.17

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	18.7%	Under 25 years:	8.0%	Full-time:	95.3%
Males:	81.3%	Over 54 years:	13.1%	Part-time:	4.7%

Industry Concentration: Jobs in these occupations are found in the hospitality, miscellaneous services, personal services, business services, administration and health/welfare sectors.

Trends: Employment in this occupational group is expected to grow at a rate close to the average. In our view, anticipated supply has been underestimated because these jobs are not starting positions for recent graduates but positions that are usually filled by people having several years' experience. Prospects for these occupations are relatively good. In the hospitality sector, management duties in small establishments are generally performed by the owner. Firms frequently look for people with experience in the relevant occupational field when recruiting management personnel. Job stability is very high in the more senior management positions.

Market Requirements: In the hospitality sector, minimum qualifications are a community college diploma in hotel or restaurant management with 3 to 4 years' related experience, or else secondary school graduation with ten years' experience.

PRODUCTION MANAGEMENT OCCUPATIONS

Examples: Dairy Manager, Field Director, Operation Manager, Plant Superintendent, Refinery Superintendent

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
12 954	14 348	1 394	2 623	4 017

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
267	234	1 906	2 407

- Competition Index: 0.60

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.64	1.26
2	1.98	1.58
3	7.07	7.57
4	5.18	7.57
5	2.69	3.79
6	78.68	74.13
7	1.23	0.95
8	0.92	2.21
9	0.60	0.95

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.2%
Males: 90.8%

Age Composition (1981)
Under 25 years: 4.9%
Over 54 years: 13.0%

Status Composition (1981)
Full-time: 99.2%
Part-time: 0.8%

Industry Concentration: Most of the jobs in this occupational group are to be found in the manufacturing sector.

Trends: Employment in these occupations is expected to grow at a rate slightly above the average. We feel that the labour supply forecast given above underestimates actual supply, which also embraces people from other occupations, as most of these jobs are not starting positions, but positions to which people are promoted after several years' experience. Prospects for the group are relatively good, especially for those with knowledge of CAD/CAM and robotics. Production managers are involved in preparatory and follow-up work relating to the movement and transformation of products during manufacture. Their duties are closely linked to industrial production, an area currently undergoing rapid technological change. The introduction of new technology is altering the role of supervisory personnel. With the use of robotics, the production process has become fully automated, making supervision redundant; and with numerically controlled machine tools, control of the production process has shifted to the computer programmers. Production managers are becoming technicians, and they must therefore have a good knowledge of technical systems.

Market Requirements: Knowledge of data processing is required. People move into these occupations later in their careers, often from other professional and technical specialties. Management and supervisory skills are sought. Bilingualism and good communications skills are important.

1145 CONSTRUCTION MANAGEMENT OCCUPATIONS

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
3 139	3 599	460		634	1 094

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
203	217	330	750

* Competition Index: 0.69

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.45	1	1.63
2	3.07	2	2.03
3	12.53	3	15.04
4	4.86	4	4.47
5	2.36	5	2.03
6	66.41	6	67.89
7	2.27	7	2.44
8	3.37	8	0.81
9	0.69	9	3.66

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.4%	Under 25 years:	3.0%	Full-time:	98.8%
Males:	98.6%	Over 54 years:	17.5%	Part-time:	1.2%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Average employment growth is forecast. The opportunities for construction managers and levels of construction activity are linked to growth in the economy. Medium-term forecasts point to a slowdown in construction activity owing to a decline in housing starts. As reasons for the decline, forecasters give an anticipated oversupply of rental units, the lifting of the moratorium on the conversion of dwelling units into condominiums, and the termination of many government-sponsored housing construction and renovation programs in 1987. Nevertheless, considerable renovation work, continued investment in the water purification program, and a number of large industrial construction projects are expected.

Market Requirements: Knowledge and experience in related technical and professional fields are assets.

FARM MANAGEMENT OCCUPATIONS

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
9 262	9 046	-216	1 288	1 072

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
N/A	50	-	50

- Competition Index: 0.05

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	N/A	N/A
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A
5	N/A	N/A
6	N/A	N/A
7	N/A	N/A
8	N/A	N/A
9	N/A	N/A

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: N/A
Males: N/A

Age Composition (1981)
Under 25 years: N/A
Over 54 years: N/A

Status Composition (1981)
Full-time: 95.0%
Part-time: 5.0%

Industry Concentration: These occupations are concentrated in the agriculture sector.

Trends: Employment is expected to decline over the next few years, based on the outlook in the agriculture sector. Few statistical data are available about labour supply. The increased size of farms, more diversified production, and the growing number of farms that are incorporating their operations may stimulate demand in this occupational group. However, farm financial conditions could limit this growth. On larger farms, the outlook is promising for managers with a wide range of scientific, business and personnel management skills.

Market Requirements: Opportunities are better for managers who are familiar with the new farm management computer systems (eg to regulate feeding and planting).

1147 TRANSPORT AND COMMUNICATIONS MANAGEMENT OCCUPATIONS

Examples: Airline Manager, Traffic Manager, Flight Director, Port Engineer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
4 405	4 712	307		980	1 287

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
103	90	350	543

* Competition Index: 0.42

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.66	1	0.78
2	2.77	2	1.55
3	10.50	3	10.85
4	3.48	4	2.33
5	2.18	5	0.78
6	72.93	6	82.17
7	2.82	7	0.00
8	2.14	8	0.78
9	1.50	9	1.78

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	14.0%	Under 25 years:	3.7%	Full-time:	99.8%
Males:	86.0%	Over 54 years:	15.3%	Part-time:	0.2%

Industry Concentration: Jobs in this occupational group are concentrated in the transportation and communications sector, chiefly in the telephone industry.

Trends: Employment is expected to grow at a rate close to the average. The low representation of young people in this group reflects the likelihood that people move into these occupations later in their careers, often from other professional and technical specialties. Deregulation of the air transport industry, privatization of some commercial carriers, and the arrival of new carriers should increase competition in this market. The road transport industry is also undergoing a radical restructuring. The regulatory amendments announced by the federal government should result in stiffer competition and make it easier for foreign carriers to penetrate the Quebec market. Prospects for these occupations are linked to changes in market activity.

Market Requirements: A number of paths lead to these occupations. Experience in related fields is an asset.

ACCOUNTANTS, AUDITORS AND OTHER FINANCIAL OFFICERS

Examples: Chartered Accountant, Cost Accountant, Industrial Accountant, Tax Analyst, Mortgage Consultant, Insurance Underwriter

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
37 166	40 582	3 416	5 116	8 532

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 660	3 502	13 952	19 114

- Competition Index: 2.24

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.12	4.39
2	2.71	6.48
3	14.79	11.27
4	4.21	8.37
5	2.83	4.44
6	68.53	57.98
7	2.58	2.19
8	1.54	4.39
9	0.90	0.50

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 29.6%
Males: 70.4%

Age Composition (1981)
Under 25 years: 4.4%
Over 54 years: 10.4%

Status Composition (1981)
Full-time: 96.5%
Part-time: 3.5%

Industry Concentration: These occupations are concentrated in the finance, business services and public administration sectors.

Trends: Employment is expected to grow at an average rate. It will take some time, however, for the economy to absorb the large number of new graduates. The emergence on the market of computer software packages designed specifically for accounting functions, such as calculating personal income tax and costs or making budget simulations, is having an impact on traditional accounting duties. Emphasis is being placed more and more on analysis and consulting. These new technologies will change the skills required of accountants from basic recording of information to being able to analyse qualitative data. Managerial and supervisory skills are sought. Opportunities should be favourable for tax accountants. As business transactions increase and become more complex, accountants will increasingly be needed to provide financial information as well as advice on tax structures.

Market Requirements: Three different degrees are offered in accountancy: Chartered Accountant (C.A.), Certified General Accountant (C.G.A.) and Registered Industrial Accountant (R.I.A.). Accounting students must finish secondary school, complete on-the-job training under an accountant, pass standardized exams and meet a number of other requirements. Students wishing to become chartered accountants may instead do a three-year university course in accountancy and then train for one year under a chartered accountant. Bilingualism and knowledge of data processing are assets.

1174 PERSONNEL AND RELATED OFFICERS

Examples: Employment Counsellor, Staff Training Officer, Labour Relations Representative, Job and Wage Analyst, Staffing Officer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
6 336	6 809	473		1 083	1 556

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
615	250	1 856	2 721

* Competition Index: 1.75

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.94	1	2.85
2	9.73	2	5.01
3	17.26	3	23.58
4	4.18	4	3.12
5	2.85	5	3.79
6	57.44	6	54.34
7	8.40	7	3.79
8	1.58	8	1.90
9	1.62	9	1.63

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	42.0%	Under 25 years:	10.7%	Full-time:	97.4%
Males:	58.0%	Over 54 years:	8.9%	Part-time:	2.6%

Industry Concentration: Most jobs in these occupations are in the public administration sector, as well as in employment agencies and financial institutions.

Trends: Employment is expected to grow at a rate well below the average. The competition index points to a relatively closed job market. The tasks of personnel officers will change as greater emphasis is placed on increased productivity and human resource planning. The introduction of technological innovations in collective bargaining agreements will add a new dimension to these officers' duties. Managerial and supervisory skills are sought.

Market Requirements: Prospects appear better for those with knowledge of automated pay and attendance systems. Candidates with a university degree in business administration are favoured over those with just a community college diploma.

PURCHASING OFFICERS AND BUYERS, EXCEPT WHOLESALE AND RETAIL TRADE

Examples: Hotel/Restaurant Purchasing Officer, Tobacco/Vegetable/Livestock Buyer, Television-time Buyer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
4 433	4 961	528	840	1 368

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
190	346	410	946

- Competition Index: 0.69

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.31	1	2.33
2	2.51	2	2.65
3	8.30	3	10.18
4	3.28	4	4.42
5	2.60	5	2.21
6	76.38	6	73.01
7	2.99	7	2.21
8	1.94	8	2.65
9	0.68	9	1.33

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 18.0%
Males: 82.0%

Age Composition (1981)
Under 25 years: 6.2%
Over 54 years: 14.4%

Status Composition (1981)
Full-time: 98.4%
Part-time: 1.6%

Industry Concentration: These occupations are concentrated in public administration and various durable manufacturing sectors.

Trends: Average employment growth is forecast. The general outlook for the group is favourable. Buyers must combine knowledge of how to secure reliable, diversified sources of supply at low prices with technical knowledge and marketing and negotiating skills. The computerization of many routine operations means that buyers' tasks are shifting away from records management toward medium- and long-term forecasting and strategic planning. As companies become more conscious of the need to reduce the costs of inventories, buyers are being given greater responsibility for optimum inventory management.

Market Requirements: General technical knowledge and familiarity with computer systems applied to purchasing and inventory control are sought, as are various personal qualities such as a sense of dialogue and co-operation, ability to work in a team, and a well-balanced personality. Bilingualism is an asset. Minimum requirements are secondary school graduation and experience in the field.

1176 INSPECTORS AND REGULATORY OFFICERS, NOT ELSEWHERE CLASSIFIED

Examples: Insurance Inspector, Ship Inspector, Tariff Inspector, Transportation Inspector, Safety Inspector

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 793	1 979	186		318	504

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
58	115	121	294

* Competition Index: 0.58

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.37	1	5.80
2	2.04	2	11.59
3	12.36	3	8.70
4	3.75	4	4.35
5	2.43	5	2.90
6	72.24	6	55.07
7	1.55	7	2.90
8	1.66	8	5.80
9	0.61	9	2.90

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	9.5%	Under 25 years:	9.2%	Full-time:	97.7%
Males:	90.5%	Over 54 years:	19.2%	Part-time:	2.3%

Industry Concentration: These occupations are concentrated in the business services sector, such as in scientific and management consulting firms, companies offering miscellaneous business services, and trade unions; in the transportation sector, including air and rail transport, auxiliary air and water transport services, trucking and public transit systems; in the health/welfare sector; and in the food and beverage sector, mainly the meat, poultry and dairy industries.

Trends: Above-average employment growth is forecast. This growth may be explained by the recent concern over the safety of dangerous products, particularly chemical products, and safety guidelines in general. In our opinion, the labour supply figure given above underestimates the real supply available, which includes many secondary school graduates. Deregulation of some industries, such as transportation, could have an impact on demand for these occupations.

Market Requirements: The qualifications and experience required vary with the occupational specialty. Secondary school graduation is generally a minimum, and several years' experience in the field are usually necessary for promotion to the position of inspector.

CHEMISTS

Exemples: Analytical Chemist, Physical Chemist, Inorganic Chemist, Industrial Chemist, Petroleum Chemist, Agricultural Chemist, Food Chemist, Nutritional Chemist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 777	1 965	188	138	326

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
118	354	547	1 019

- Competition Index: 3.13

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.65	4.29
2	2.95	5.00
3	6.39	15.71
4	2.90	12.14
5	2.95	7.14
6	76.72	51.43
7	5.24	2.14
8	1.75	1.43
9	0.45	0.71

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 17.2%
Males: 82.8%

Age Composition (1981)
Under 25 years: 11.0%
Over 54 years: 8.8%

Status Composition (1981)
Full-time: 96.3%
Part-time: 3.7%

Industry Concentration: These occupations are concentrated in the chemical products, business services and education sectors.

Trends: An average rate of employment growth is forecast. An oversupply of qualified workers is expected.

Market Requirements: A university degree in the relevant specialty is required.

2112 GEOLOGISTS

Examples: Geochemist, Geophysicist, Hydrologist, Oceanographer, Mineralogist, Seismologist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
713	800	87		97	184

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
161	52	421	634

* Competition Index: 3.45

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.15	1	3.66
2	6.44	2	10.99
3	22.46	3	20.94
4	0.00	4	2.05
5	0.00	5	2.62
6	52.65	6	50.26
7	2.15	7	2.62
8	12.45	8	6.28
9	0.72	9	0.52

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	14.4%	Under 25 years:	15.8%	Full-time:	97.5%
Males:	85.6%	Over 54 years:	3.6%	Part-time:	2.5%

Industry Concentration: Jobs in this occupational group are concentrated in the mining, public administration and business services sectors.

Trends: Employment is expected to grow at about an average rate. It will still be very difficult for new graduates to enter the labour market, however, and no improvement is anticipated over the medium term. While openings may be created by the ongoing search for new sources of energy, the spread of efficient "electronic prospectors" and sophisticated aerial detecting devices may reduce the demand for geologists. Demand for oceanographers is closely linked to future developments in deep sea exploration and research.

Market Requirements: Basic qualifications are a community college diploma in physical sciences and university graduation in the relevant scientific field.

PHYSICISTS

Examples: Astronomer, Acoustician, Experimental Physicist, Laser Specialist, Biophysicist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
313	344	31		39	70

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
21	N/A	N/A	21

- Competition Index: 0.30

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	-	1	0.00
2	5.17	2	10.53
3	7.90	3	31.58
4	5.78	4	15.79
5	3.04	5	0.00
6	73.56	6	42.11
7	4.56	7	0.00
8	0.00	8	0.00
9	0.00	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)	
Females:	9.5%
Males:	90.5%

Age Composition (1981)	
Under 25 years:	9.5%
Over 54 years:	7.9%

Status Composition (1981)	
Full-time:	97.4%
Part-time:	3.6%

Industry Concentration: These occupations are concentrated in the education, business services, hospital services, electrical power and public administration sectors.

Trends: Employment is expected to grow at about an average rate. Demand for these occupations has been dampened by the slow growth of research budgets and restrictions on government spending. Movement of labour between fields is limited, resulting in a situation where a certain type of physicist may be difficult to find while another specialty has an oversupply. Openings are anticipated in acoustics, optics, oceanography and fluid mechanics, but they will represent only a small percentage of total employment.

Market Requirements: A university degree in physics is required.

Examples: Biochemistry Technician, Metallurgical Tester, X-Ray Technician, Textile Technologist, Forest Products Technologist, Chemistry Technologist, Nuclear Power Station and Heavy Water Production Plant Technician

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
4 832	5 340	508	1 078	1 586

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
608	1 619	475	2 702

* Competition Index: 1.70

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.47	1	5.26
2	5.16	2	5.76
3	14.63	3	30.10
4	5.95	4	7.24
5	3.57	5	2.96
6	59.97	6	38.16
7	5.39	7	2.63
8	3.05	8	5.76
9	0.81	9	2.14

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	23.8%	Under 25 years:	29.2%	Full-time:	97.8%
Males:	76.2%	Over 54 years:	7.2%	Part-time:	2.2%

Industry Concentration: These occupations are concentrated in the business services, education and public administration sectors.

Trends: Slightly below-average employment growth is forecast. Over the next few years, labour supply for these occupations is expected to exceed demand. Job prospects in the group vary from specialty to specialty. For plastics technologists, the outlook is good, and the Quebec plastics industry is even having trouble finding enough qualified workers. While CAD/CAM technology is still not widely used, familiarity with it is definitely an asset, as are managerial, supervisory, development and analysis, and human relations skills. Openings for geology and geophysics technicians depend on changes in oil and metal prices. Low commodity prices have meant sharp cuts in exploration budgets, thus reducing labour demand in these occupations. Jobs for chemistry technologists are determined by demand for chemical products and raw materials. There seems to be an oversupply in this area which will probably continue for some time. Demand for forest products processing technologists depends greatly on the economic situation, and particularly on the health of the construction and pulp and paper industries. In pulp and paper, demand could be spurred by considerable research activity. Employers are now frequently looking for technologists with personnel management skills.

Market Requirements: A community college diploma in the relevant specialty is being increasingly required by employers. Communications skills are becoming more important as technologists and technicians are given more responsibility to act as intermediaries between companies and their customers and between teams involved in different projects. Technical knowledge and experience with computer systems are in demand. Personnel management skills are an asset.

Examples: Agricultural Adviser, Horticulturist, Animal Scientist, Dairy Scientist, Soil Conservationist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 684	1 758	74		239	313

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
508	101	338	947

* Competition Index: 3.03

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	8.23	1	5.31
2	5.72	2	4.37
3	26.55	3	22.83
4	7.18	4	15.91
5	3.85	5	2.95
6	42.47	6	53.15
7	4.14	7	2.76
8	1.75	8	1.57
9	0.12	9	1.18

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	18.4%	Under 25 years:	11.6%	Full-time:	96.8%
Males:	81.6%	Over 54 years:	10.8%	Part-time:	3.2%

Industry Concentration: These occupations are concentrated in the public administration, agriculture, and food and beverage sectors.

Trends: Demand for scientific expertise in agriculture is being stimulated by the spread of sophisticated agricultural technology, the introduction of new types of breeding (eg rabbits and goats), and increasing interest in controlled-atmosphere production (eg hogs and poultry, and under glass). Biotechnological research and its application to the agricultural sector should also create some new jobs, although in the short term they will be few in number. Employment opportunities are opening up in a neglected area of the tertiary sector, professional marketing and trade services. The outlook is also good in administration, finance and sales representation. Agriculturalists' tasks are being changed considerably by the introduction of microcomputer and data processing technology, and this is true for both farm management and production (eg calculation of food ratios, dairy production and field management). Demand is growing for agriculturists who are specialized in farm management. This demand could further be boosted by the gradual establishment of farm management organizations designed to provide their members with an array of consulting services in accounting, taxation and management. Financial and legal knowledge embracing farm credit, economics, financial management, governmental agreements, joint ventures and agricultural trade unionism is increasingly in demand.

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Market Requirements: A university degree in agriculture and membership in the Order of Agronomists of Quebec are required. For horticulturists, a community college diploma in the three-year agricultural technology program, with the agriculture option, is required. For some jobs, a university degree with a specialization in horticulture is necessary.

BIOLOGISTST AND RELATED SCIENTISTS

Examples: Marine Biologist, Botanist, Zoologist, Cytologist, Bacteriologist, Microbiologist, Anatomist, Toxicologist, Ecologist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 779	1 929	150		155	305

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
510	202	690	1 402

* Competition Index: 4.60

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.65	1	7.06
2	1.07	2	7.06
3	22.43	3	20.98
4	3.53	4	8.04
5	2.71	5	4.57
6	59.27	6	49.02
7	2.91	7	1.76
8	1.43	8	0.78
9	1.99	9	0.78

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	35.7%	Under 25 years:	14.8%	Full-time:	95.9%
Males:	64.3%	Over 54 years:	6.7%	Part-time:	4.1%

Industry Concentration: Jobs in these occupations are found in the hospital services, public administration, education services and recreation services sectors.

Trends: Below-average employment growth is forecast for this group to 1993. Labour supply is expected to exceed demand. Research into new drugs, biotechnology, environmental protection and new plant strains is creating openings for biologists. The increase in the number of biotechnology firms will boost demand for scientists in these fields. Over the short term, however, new jobs will be few and essentially for specialists.

Market Requirements: A university degree in the relevant specialty is generally required for employment in these occupations. Master's or doctoral degrees are often necessary, especially for research.

2135 LIFE SCIENCES TECHNOLOGISTS AND TECHNICIANS

Examples: Agricultural Technician, Bacteriology Technician, Seed Analyst, Zoology Technician, Fish Farm Technologist, Silviculturist, Resource Management Technician, Forest Technician

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
2 887	3 116	229	344	573

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
864	827	225	1 916

* Competition Index: 3.34

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	8.60	1	13.08
2	6.22	2	11.46
3	20.38	3	30.32
4	5.43	4	7.95
5	4.19	5	3.67
6	45.01	6	22.92
7	4.65	7	4.51
8	2.29	8	3.24
9	3.24	9	0.81

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	27.8%	Under 25 years:	38.6%	Full-time:	96.8%
Males:	72.2%	Over 54 years:	3.1%	Part-time:	3.2%

Industry Concentration: These occupations are concentrated in public administration, the forest industry, education and the hospital services sector.

Trends: Employment is expected to grow at a rate significantly below the average. The supply of qualified labour in the group should exceed demand. Prospects for forest technicians depend on government forest development policies. The new public forest reforestation policy adopted by the provincial government may stimulate demand for these workers. The services of zoology technicians are required by producer groups, agricultural professionals and farm organizations. These workers are therefore often called upon to deal directly with producers. Both general and technical training are necessary, and personnel management and communications skills are sought. Openings for soil technologists may increase as the result of government land development and environmental protection programs.

Market Requirements: Completion of a three-year community college course in the relevant specialty is usually required. Mobility is necessary for most of these jobs, and many are temporary, contract, part-time of seasonal positions. Full-time positions can often be obtained after two or three years' experience. There is a certain amount of competition between university graduates in agriculture and community college graduates in agricultural technology.

OCCUPATIONS IN LIFE SCIENCES, NOT ELSEWHERE CLASSIFIED

Examples: Ecologist, Forest Pathologist, Park Naturalist, Food Technologist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
819	903	84		124	208

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
94	75	121	290

* Competition Index: 1.39

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	34.48	1	13.83
2	6.78	2	12.77
3	14.83	3	20.21
4	3.56	4	8.51
5	5.86	5	10.64
6	15.98	6	27.66
7	10.23	7	4.26
8	8.28	8	1.06
9	0.00	9	1.06

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 23.1%
Males: 76.9%

Age Composition (1981)
Under 25 years: 30.8%
Over 54 years: 8.8%

Status Composition (1981)
Full-time: 96.4%
Part-time: 3.6%

Industry Concentration: Jobs in these occupations are found in the forestry, public administration and agriculture sectors.

Trends: Below-average employment growth is forecast for this group. The supply of qualified workers is expected to exceed demand.

Market Requirements: Mobility is required for technicians working in environmental protection. Few community college graduates have jobs in food technology. Mobility is necessary for occupations in this field, too.

2141 ARCHITECT

Examples: Building Architect, Landscape Architect

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 294	2 514	220	252	472

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
179	87	917	1 183

° Competition Index: 2.51

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.58	1	1.12
2	1.83	2	2.23
3	18.33	3	18.99
4	1.63	4	2.23
5	1.38	5	1.12
6	71.25	6	71.51
7	3.38	7	1.12
8	0.96	8	1.68
9	0.67	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	9.7%	Under 25 years:	6.8%	Full-time:	95.9%
Males:	90.3%	Over 54 years:	12.7%	Part-time:	4.1%

Industry Concentration: Jobs in these occupations are found in the business services and public administration sectors.

Trends: Above-average employment growth is forecast. The supply of qualified workers in the group should surpass demand. The arrival on the market of several other types of professionals and technicians undercutting architects but offering similar services, such as construction management, exterior decoration, landscaping and urban planning, will intensify competition. Job prospects are more promising for those familiar with computer-aided design, which is gradually being used on a regular basis in medium-sized and large firms. Furthermore, to meet increasing demands from customers, knowledge and experience in economic feasibility studies, interpretation of by-laws and regulations, and loan applications are assets.

Market Requirements: A university degree in architecture is required. Membership in the Order of Architects of Quebec is mandatory. For landscape architects, membership in the Association of Landscape Architects of Quebec is optional.

CHEMICAL ENGINEERS

Examples: Process Technology, Chemical Product Design and Development, Environmental Engineer, explosives Engineer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
833	945	112		128	240

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
59	-	490	549

* Competition Index: 2.29

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1		1	1.69
2	4.41	2	5.08
3	8.36	3	15.25
4	4.88	4	10.17
5	1.57	5	5.08
6	6.07	6	59.32
7	1.63	7	1.69
8	2.56	8	1.69
9	0.58	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.0%	Under 25 years:	10.8%	Full-time:	99.3%
Males:	97.0%	Over 54 years:	7.8%	Part-time:	0.7%

Industry Concentration: These occupations are concentrated in the chemical products, pulp and paper, smelting and refining, oil and business services sectors.
Trends: Employment is expected to grow at a rate slightly above the average. Labour supply may exceed demand. Demand for chemical engineers is more sensitive to changing economic conditions than demand for any other type of engineer. A surplus of chemical engineers exists at present, as a result of the restructuring of the chemical industry that took place between 1982 and 1984. The petrochemical industry was particularly hard hit by the glut in world oil production. Four major refineries were closed in Quebec. Prospects remain bleak for this sector: fertilizer producers are dependent on farm revenue levels, which are expected to be relatively low, and consulting firms are experiencing hard times because new companies are keeping tight control of their capital spending. Among the factors that may increase demand are the growing complexities of chemical processes, the development of plastics and synthetic fibers and the expanding field of biotechnology. Chemical engineers are in demand in biotechnology because the industrial uses and commercial applications of the technology because the industrial uses and commercial applications of the technology have much in common with other activities that require knowledge of chemical engineering and engineering processes. Managerial, supervisory and communications skills are assets.
Market Requirements: A university degree in chemical engineering is required. Membership in the Order of Engineers of Quebec is mandatory.

2143 CIVIL ENGINEERS

Examples: Structural Design, Construction, Transportation, Municipal, Hydrology

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
5 289	5 860	571		622	1 193

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
304	-	2 412	2 716

* Competition Index: 2.28

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.77	1	1.32
2	3.58	2	4.93
3	13.92	3	18.09
4	4.50	4	3.29
5	2.44	5	2.63
6	68.22	6	66.45
7	2.31	7	1.32
8	2.60	8	0.99
9	0.67	9	0.99

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	2.8%	Under 25 years:	6.3%	Full-time:	98.3%
Males:	97.2%	Over 54 years:	10.3%	Part-time:	1.7%

Industry Concentration: Jobs in these occupations are concentrated in the business services and public administration sectors.

Trends: Above-average employment growth is forecast. The competition index points to a very competitive job market. The prospects for this group are linked to construction activity that in turn is determined by economic conditions. The abandonment of energy megaprojects, the drop in construction activity and the postponing of plans for expansion have depressed demand for civil engineers. Government budget constraints resulting in cuts in highway, bridge, sewer system, and water treatment plant design and construction projects will further reduce this demand. In addition to spending by governments and construction firms, the growth of export markets for consulting services will be another factor determining demand for this occupational group.

Market Requirements: A university degree in civil engineering is normally required. Membership in the Order of Engineers of Quebec is mandatory.

ELECTRICAL ENGINEERS

Examples: Electronics, Control Systems, Sound, Aerospace Electrical and Electronics Engineer, Computers, Communications

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
4 954	5 402	448	757	1 205

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
209	-	2 363	2 572

* Competition Index: 2.13

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.36	1	0.48
2	1.35	2	7.66
3	5.53	3	11.96
4	3.33	4	4.78
5	1.25	5	3.83
6	82.65	6	67.94
7	2.73	7	2.39
8	1.16	8	0.48
9	0.64	9	0.48

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 4.5%
Males: 95.5%

Age Composition (1981)
Under 25 years: 7.1%
Over 54 years: 10.1%

Status Composition (1981)
Full-time: 98.7%
Part-time: 1.3%

Industry Concentration: Jobs in these occupations are found in the electrical power, electrical products, business services, telephone and telegraph industries.

Trends: Above-average employment growth is forecast. The supply of qualified workers should exceed demand. The anticipated growth in the aerospace industry should boost demand for electrical engineers specialized in this area. Demand will be greatest for electronics engineers, chiefly because of the more widespread use of microprocessors, which means increased need for specialists in electronics, telecommunications, control systems and data processing. The development of robotics software for robot manufacturers and their suppliers will create good opportunities for highly qualified computer engineers, although this market is not limited to Quebec. There will be growing demand for software specialists with knowledge of systems network architecture, data bank design, operating systems, microtechnology, telecommunications and artificial intelligence.

Market Requirements: A university degree in electrical engineering is required. Membership in the Order of Engineers of Quebec is mandatory.

2145 INDUSTRIAL ENGINEERS

Examples: Efficiency, Methods, Quality Assurance, Plant Layout, Manufacturing

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
4 103	4 609	506		587	1 093

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
205	-	1 753	1 958

* Competition Index: 1.79

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.71	1	1.18
2	3.30	2	4.73
3	9.22	3	6.51
4	4.31	4	7.10
5	1.71	5	1.78
6	75.42	6	76.92
7	2.09	7	1.18
8	1.18	8	0.00
9	1.06	9	0.59

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	13.4%	Under 25 years:	5.7%	Full-time:	99.1%
Males:	86.6%	Over 54 years:	10.6%	Part-time:	0.9%

Industry Concentration: These occupations are concentrated in the public administration and business services sectors.

Trends: Above-average employment growth is forecast. The competition index points to an excess supply of qualified labour. The spread of automation and the increasing use of robotics are opening up promising opportunities for industrial engineers. The new automated machining processes, especially numerically controlled machine tools, have systematized machining into a programming sequence (tool specifications, sequence of operations, cutting angles and speed, rate of feed, etc...). The need to organize these tasks efficiently should mean strong demand for industrial engineers. The computerization of production management systems, together with the constant output control this allows, has given industrial engineers more time to devote to production analysis. EDP technology has also meant that engineers now spend far less time on actual calculations and far more time on design and analysis.

Market Requirements: A university degree in industrial engineering, or in mechanical or chemical engineering with emphasis on industrial engineering, is usually required. Engineering training is tending to become more demanding. Knowledge of computerized production control systems is becoming a necessity. Membership in the Order of Engineers of Quebec is mandatory.

MECHANICAL ENGINEERS

Examples: Plant and Machine Design, Automation, Lubricating, Refrigeration, Aerospace Vehicle Propulsion

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
3 000	3 389	389		264	653

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
190	-	1 250	1 440

* Competition Index: 2.21

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.27	1.79
2	4.11	8.04
3	7.15	9.82
4	3.70	4.02
5	2.97	4.91
6	76.61	69.20
7	2.75	0.89
8	0.47	0.89
9	0.95	0.45

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.9%
Males: 98.1%

Age Composition (1981)
Under 25 years: 8.9%
Over 54 years: 15.3%

Status Composition (1981)
Full-time: 99.1%
Part-time: 0.9%

Industry Concentration: Jobs in these occupations are spread throughout a broad range of sectors of the economy.

Trends: Above-average employment growth is forecast. An oversupply of qualified labour is expected. The fact that mechanical engineers are involved in a wide variety of fields makes them less vulnerable to changing economic conditions than the other engineering groups. However, the high degree of specialization means that there may be a shortage of some specialists but an oversupply of others. Demand for mechanical engineers will be boosted by machine-tool design for increasingly complex manufacturing processes and by software design for robotics. Growth in the aerospace industry will stimulate demand for mechanical engineers specialized in this area. There is a need for heating, ventilation and air-conditioning engineers with knowledge and experience of maintenance mechanics.

Market Requirements: A university degree in mechanical engineering is required. Managerial and supervisory skills and knowledge of computer-aided design are sought. Many engineers must now assist in selling their firm's products. Knowledge of more than one specialty is an asset. Membership in the Order of Engineers of Quebec is mandatory.

2151 METALLURGICAL/MATERIALS ENGINEERS

Examples: Physical, Extractive and Process Metallurgy, Materials Science, Materials Handling, Foundry Metallurgist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
582	660	78	87	165

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
18	-	577	595

* Competition Index: 3.61

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.69	1	0.00
2	11.51	2	4.55
3	3.26	3	22.73
4	3.78	4	4.55
5	1.55	5	0.00
6	63.40	6	54.55
7	2.41	7	0.00
8	13.06	8	9.09
9	0.34	9	4.55

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.6%	Under 25 years:	6.4%	Full-time:	100%
Males:	96.4%	Over 54 years:	6.4%	Part-time:	0.0%

Industry Concentration: These occupations are found in the primary metals processing business services, aircraft and ship building, and mining sectors.

Trends: Above-average employment growth is forecast. A labour oversupply is expected for the next few years. Metallurgical engineers generally specialize in one of three fields: extractive metallurgy, physical metallurgy and metallurgical production processes. The last two specialties are sensitive to changing economic conditions and depend on the sale of steel exports and the state of the aerospace, automobile and machinery markets.

Market Requirements: A university degree in metallurgical engineering is required. Membership in the Order of Engineers of Quebec is mandatory.

MINING ENGINEERS

Examples: Mine Design/Construction (underground and surface), Mineral Exploration, Extraction, Processing

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
418	474	56	50	106

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
25	-	315	340

- Competition Index: 2.21

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.10	1	0.00
2	5.87	2	0.00
3	20.41	3	33.33
4	0.00	4	6.67
5	4.85	5	3.33
6	32.65	6	46.67
7	1.28	7	2.00
8	17.35	8	10.00
9	12.50	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 2.1%
Males: 97.9%

Age Composition (1981)
Under 25 years: 8.5%
Over 54 years: 11.7%

Status Composition (1981)
Full-time: 100%
Part-time: 0.0%

Industry Concentration: These occupations are concentrated in the mining, business services and public administration sectors.

Trends: Above-average employment growth is forecast, along with an oversupply of qualified labour. Demand for mining engineers is related to demand for minerals. Employment growth among mining engineers is being adversely affected by low metal prices, the world glut of coal, and the depressed iron market, which is linked to forecasts of slow growth in world steel output, the determining factor in the demand for iron ore. Nevertheless, the development of technologically advanced efficient mining systems, the implementation of increasingly stringent mine safety standards, the recovery of low grade ores, and the mining of minerals under the seabed are fields that should provide opportunities for mining engineers. Engineers with experience in the mining of oil industries may find jobs in biotechnology. Specialists in production process control and data processing have better prospects than other mining engineers. The use of computer technology in mines is having an impact of mine planning, feasibility studies and mining geology but little effect on the demand for mining engineers.

Market Requirements: A universy degree in mining engineering is required. Membership in the Order of Engineers of Quebec is mandatory. Knowledge of mining and planning applications of computer technology is an asset.

2154 PETROLEUM ENGINEERS

Examples: Reservoir Engineering, Oil and Gas Recovery and Processing, Chief Drilling and Recovery Engineer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
137	133	-4	24	20

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1	N/A	188	189

* Competition Index: 9.45

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.00	1	-
2	0.00	2	-
3	11.04	3	-
4	0.00	4	-
5	0.00	5	-
6	85.89	6	100.00
7	3.07	7	-
8	0.00	8	-
9	0.00	9	-

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 11.8%
Males: 88.2%

Age Composition (1981)
Under 25 years: 17.7%
Over 54 years: 5.9%

Status Composition (1981)
Full-time: N/A
Part-time: N/A

Industry Concentration: Jobs in this occupational group are to be found in the oil and gas, business services and public administration sectors.

Trends: Employment growth well below the average is forecast, and an oversupply of qualified labour is expected. Prospects in this group depend on the demand for oil and gas and the prices of these commodities. Recently, prices have been too low to encourage the search for new reserves or to justify the expansion of the heavy oil project in Alberta or exploration in the Arctic or off Newfoundland. There is thus a surplus of qualified engineers, many of them new graduates. Little change is anticipated over the short term, with demand depending strongly on the world price of crude oil. Higher prices would justify recovery costs such as pumping water into wells to force oil to the surface. Greater emphasis on new technologies of this kind should increase demand for petroleum engineers. Openings are concentraded in Alberta, where over 80% of Canada's petroleum engineers are based.

Market Requirements: A university degree in mining or geological engineering is required. Petroleum engineering is not taught in Quebec, but programs are offered at the University of Alberta, in Edmonton, and the University of Calgary.

OTHER PROFESSIONAL ENGINEERS, PLUS 2146 -- AGRICULTURAL ENGINEERS

2146
2159

Examples: Engineering Physics/Science, Agricultural and Forestry Engineering, Biological Engineering, Ship Construction Engineers, Biomedical Engineer, Clinical Engineer, Agricultural Engineer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
2 165	2 390	225		246	471

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
174	N/A	848	1 022

° Competition Index: 2.17

2. DISTRIBUTION BY REGION OF QUEBEC (for 2159 only)

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.61	1	7.04
2	4.58	2	6.57
3	22.52	3	34.74
4	2.74	4	3.76
5	0.58	5	6.57
6	59.37	6	32.39
7	3.01	7	2.35
8	3.91	8	5.16
9	0.67	9	1.41

3. MAIN CHARACTERISTICS (for 2159 only)

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	8.9%	Under 25 years:	7.9%	Full-time:	97.7%
Males:	91.1%	Over 54 years:	11.9%	Part-time:	2.3%

Industry Concentration: Jobs in these occupations are concentraded in the business services and public administration sectors.

Trends: Employment is expected to grow at an above-average rate. An oversupply of qualified workers is forecast. Demand for forestry engineering consultants may be stimulated by the Quebec government's new reforestation policy. The obligation for forest users to reforest, by natural methods or replanting, the areas they have harvested could create additional demand for forestry equipment and services. Demand for ship construction engineers and naval architects is dependent on ship orders from the government. There are very few professionals in this occupation in Canada, and it looks as though the market will remain limited. Prospects for agricultural engineers depend on the economic situation in the agriculture sector; at present, the weakness of farm revenue means there is little demand for tractors and other farm equipment, and as a result few openings for engineers in this specialty. Demand for geological engineers is directly linked to the markets for metals, oil and gas. Given the current low pricesfor base metals and crude oil, the oversupply in this occupational group will persist until markets begin to firm up again.

Market Requirements: A university degree in the relevant engineering specialty is required.

2161 SURVEYORS

Examples: Marine Surveyor, Pipeline Surveyor, Topographic Surveyor, Instrument Person, Surveyor Helper, Stake Person

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
4 185	4 711	526		464	990

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
950	916	363	2 229

° Competition Index: 2.25

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.37	1	7.88
2	4.12	2	10.14
3	19.78	3	19.87
4	7.98	4	10.56
5	3.68	5	3.69
6	42.06	6	31.60
7	6.32	7	5.28
8	6.34	8	8.30
9	2.34	9	2.68

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.3%	Under 25 years:	33.0%	Full-time:	95.7%
Males:	96.7%	Over 54 years:	4.6%	Part-time:	4.3%

Industry Concentration: Jobs in these occupations are concentrated in the business services, public administration, and buildings and public works sectors.

Trends: Above-average employment growth is forecast. The supply of qualified labour should exceed demand. There is a growing need for workers experienced in legal surveying. The program to revise the cadastral system may brighten prospects for this occupational group.

Market Requirements: The qualifications required vary with the type of job. For some positions, a university degree in surveying or in civil engineering with specialization in geodesy or surveying is necessary, while for others, graduation from the secondary long vocational program is sufficient.

DRAUGHTING OCCUPATIONS

Examples: Aeronautical Draughter, Architectural Draughter, Electronic Cartographer, Mechanical Draughter, Computer-Aided Design Draughter, CAD Specialist, Printed Circuit Board Specialist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
9 681	10 748	1 067	603	1 670

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 202	1 765	514	3 481

- Competition Index: 2.08

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.61	1	2.37
2	3.16	2	7.18
3	13.49	3	21.39
4	4.62	4	7.38
5	2.12	5	3.18
6	69.65	6	52.47
7	3.19	7	3.18
8	1.43	8	2.10
9	0.72	9	0.74

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 14.7%
Males: 85.3%

Age Composition (1981)
Under 25 years: 27.4%
Over 54 years: 7.0%

Status Composition (1981)
Full-time: 98.2%
Part-time: 1.8%

Industry Concentration: Jobs in these occupations are concentrated in the business services and public administration.

Trends: Above-average employment growth is forecast, but labour supply is expected to exceed demand. The fact that jobs in these occupations are concentrated in engineering and architectural firms makes the group quite sensitive to changing economic conditions. When there are few factory or building construction projects under way, there is little demand for project designer- draughters or for their equipment. Capital spending in trade and industry has been low over the last few years, and there is no sign of any improvement. The result is an oversupply of draughters, and this situation may well persist over the next few years. However, there seems to be a shortage of design draughters but a surplus of tracers. The number of draughters working in fields such as refineries, chemical plants and shipbuilding will exceed demand. Computer-aided design and draughting (CADD) have fundamentally changed the nature of draughting work, eliminating repetitive tasks such as correcting and altering drawings, filing, copying and making working drawings. As a result, greater skills are now required for jobs in this occupational group. More widespread use of CADD may counteract part of the new demand for draughters created by the development of increasingly complex

products and processes. Prospects are better for the more qualified draughters and those who are familiar with computer systems. For occupations in cartography, experience in ink drawing is often required. The program to revise the Quebec cadastral system should increase the number of openings for these professionals.

Market Requirements: A community college diploma in the relevant field is generally required. Knowledge of computer-aided draughting systems is an asset.

ENGINEERING TECHNOLOGISTS AND TECHNICIANS, PLUS 2164 - ARCHITECTURAL TECHNOLOGISTS AND TECHNICIANS 2164 2165

Examples: Aerospace Engineering Technician, Electronic Technician, Chemical Technician, Environmental Clean-up Technician, Quality Control Technician, Nuclear Engineering Technologist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
12 120	13 403	1 283	1 158	2 441

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 864	3 927	270	7 061

- Competition Index: 2.89

2. DISTRIBUTION BY REGION OF QUEBEC (for 2165 only)

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.86	1	8.23
2	4.64	2	8.51
3	1.03	3	20.54
4	7.26	4	10.71
5	3.40	5	3.63
6	76.30	6	40.76
7	0.20	7	2.74
8	2.78	8	3.06
9	1.53	9	1.83

3. MAIN CHARACTERISTICS (for 2165 only)

Sex Composition (1981)
Females: 5.0%
Males: 95.0%

Age Composition (1981)
Under 25 years: 28.3%
Over 54 years: 4.6%

Status Composition (1981)
Full-time: 98.6%
Part-time: 1.4%

Industry Concentration: Jobs in these occupations are concentrated in a wide range of sectors. Architectural technicians are chiefly employed in the construction industry.

Trends: Above-average employment growth is forecast, but labour supply is expected to exceed demand. More widespread use of computer and other electronic equipment in both the production process and the automated office should ensure good prospects for electrical and electronic engineering technicians. Demand for these technicians should further be stimulated by the need to repair and maintain this increasingly complex equipment. Qualifications in plan reading and in the application of electricity, electronics, micro-electronics and robotics to production and office automation equipment are sought. In servicing CAD/CAM and robotic equipment, there is a growing trend toward specialization, and this trend should continue as the range of electronic equipment broadens and the equipment becomes more sophisticated. There is also a trend toward greater use of small-scale systems, thus allowing smaller firms to take advantage of available CAD/CAM technology. Research now under way into artificial vision, pressure sensors and touch detectors will bring a large number of new CAM applications. Demand for architectural technicians is dependent on the level of activity in

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2165

the construction industry. With the exception of the renovation sector, which should remain active, the outlook in the industry for these technicians is not promising. Government budgetary restraints mean cuts in public works, and this will limit the number of openings for this occupation. In the case of industrial engineering technicians, demand should be spurred by investment in the motor vehicle industry and the replacement market for public transit equipment. Consolidation of the aerospace industry should create demand for aerospace engineering technicians. The application of new manufacturing processes and new technologies should generate a need for mechanical engineering technicians qualified in computer applications for business, maintenance mechanics, computer-aided draughting and CAD/CAM.

Market Requirements: A community college diploma in the relevant specialty is required. The introduction of computer-aided draughting technology should change the skills required of most of these technicians. Electronic technicians must be willing to continually upgrade their knowledge; improvements in equipment require a constant effort to keep up to date, particularly in the fields of microprocessing, digital circuits, servomechanisms, video equipment (VCRs, cameras), programmable controllers, telecommunications and data transmission. The industry stresses the need for employees to have good interpersonal skills for dealing with customers, knowledge of business practices, and effective communications skills. Soldering and unsoldering skills are also required. Technicians specialized in servicing robotic equipment should have knowledge in electronics, industrial electricity, pneumatics, hydraulics and a wide range of automated equipment. Understanding the process performed by the robot (eg inspection, welding, painting) is also necessary. For all these technicians, training in industrial safety and accident prevention as well as managerial and supervisory skills are sought.

MATHEMATICIANS, STATISTICIANS AND ACTUARIES

Examples: Insurance Company Actuary, Sampling Expert, Demographer, Finance Statistician, Quality Control Analyst

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
1 357	1 498	141	138	279

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
78	N/A	390	468

- Competition Index: 1.68

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.38	0.00
2	0.84	2.33
3	18.11	15.12
4	1.33	4.65
5	1.82	2.33
6	68.11	68.60
7	7.06	6.98
8	0.35	0.00
9	0.00	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 26.7%
Males: 73.3%

Age Composition (1981)
Under 25 years: 13.2%
Over 54 years: 8.1%

Status Composition (1981)
Full-time: 98.5%
Part-time: 1.5%

Industry Concentration: Jobs in these occupations are found in the business services and public administration sectors.

Trends: Employment should grow at about the average rate, but the supply of qualified workers in the group is expected to exceed demand. With growing demand for sophisticated pension and insurance information, the need for actuaries could increase much faster in the future. New opportunities in fields other than insurance, especially in the finance sector, may open up for actuaries specialized in financial risk analysis.

Market Requirements: To be a recognized actuary in Canada, fellowship in the Canadian Institute of Actuaries is required. Fellowship is granted to those who pass a series of ten exams set by the Institute. The university actuarial program prepares candidates for the first five exams.

2183 SYSTEMS ANALYSTS, COMPUTER PROGRAMMERS AND RELATED OCCUPATIONS

Examples: Basic Software Programmer, Automated Graphics Specialist, Simulation Systems Analyst, Accounting Methods Analyst, Machine-Tool Numerical Adjustment Programmer, Mini- and microcomputer Specialist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
17 040	18 834	1 794		2 021	3 815

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
1 221	6 093	7 779	15 093

* Competition Index: 3.96

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.88	1	2.29
2	1.46	2	5.76
3	20.77	3	16.02
4	1.36	4	6.66
5	1.22	5	4.23
6	69.51	6	58.81
7	4.05	7	3.54
8	0.45	8	1.66
9	0.29	9	1.04

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	34.1%	Under 25 years:	27.8%	Full-time:	98.1%
Males:	65.9%	Over 54 years:	1.8%	Part-time:	1.9%

Industry Concentration: Jobs in these occupations are found in the public administration, business services, finance, insurance and education sectors.

Trends: Employment is expected to grow at a rate slightly above the average. The supply of qualified labour in this group should exceed demand over the next few years. The spread of computers, robots and numerically controlled tools should spur demand for these occupations. The need will be greater for software designers and less for lower-skilled programmers, who face a more limited market. The introduction of "software packages," ie fully prepared applications software sold on the market, is cutting into demand, especially from small businesses, who tend to buy these less-expensive systems. Demand is now turning to highly specialized programmers in sorfware, systems integration and installation methods, and data bases. The information industry will continue to lead to openings in such related occupations as data base manager, information systems engineer and information scientist. New demand is now growing in areas such as software testing, power supply, radio frequency, microtechnology and artificial intelligence. Sales is also an area where opportunities are opening up.

Market Requirements: A community college diploma in computer science is required, and a university degree in the field is an advantage. Managerial skills and familiarity with company organization and business objectives are increasingly in demand. Skills in user training are also sought.

ECONOMISTS

Examples: Agricultural Economist, Development Economist, Labour Economist, Economic Adviser, Market Analyst, Advertising Analyst

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
3 245	3 496	251 355	606

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
305	N/A	1 933	2 238

- Competition Index: 3.69

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.62	1.63
2	0.89	1.36
3	20.79	24.66
4	2.19	4.61
5	2.19	2.71
6	64.56	61.52
7	7.86	1.90
8	0.47	0.27
9	0.44	1.36

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 22.0%
Males: 78.0%

Age Composition (1981)
Under 25 years: 6.8%
Over 54 years: 8.5%

Status Composition (1981)
Full-time: 97.4%
Part-time: 2.6%

Industry Concentration: Jobs in these occupations are found in the business services in the public administration, business services, finance and insurance sectors.

Trends: Employment should grow at about the average rate, but a labour surplus is expected. Over the last ten years or so the job market for economists has shrunk considerably, and demand has shifted between various specialties in this field. Knowledge and experience of quantitative methods and statistics seem to be in greater demand than specialization in monetary and financial economics. The outlook for specialists in natural resources, transportation and international economics appears to be more promising. Opportunities may open up in tax planning, foreign exchange, management and writing.

Market Requirements: A university degree in economics is generally required. Knowledge of quantitative methods in an asset.

2313 SOCIOLOGISTS, ANTHROPOLOGISTS AND RELATED SOCIAL SCIENTISTS

Examples: Anthropologist, Criminologist, Social Ecologist, Archeologist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
703	760	57		107	164

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
425	N/A	36	461

* Competition Index: 2.81

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.00	1	4.10
2	2.00	2	2.93
3	28.36	3	33.01
4	0.67	4	2.15
5	0.00	5	1.17
6	58.32	6	54.30
7	6.39	7	1.76
8	0.53	8	0.20
9	1.73	9	0.39

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	41.3%	Under 25 years:	12.0%	Full-time:	95.3%
Males:	58.7%	Over 54 years:	2.8%	Part-time:	4.7%

Industry Concentration: Jobs in these occupations are found in the public administration, health/welfare, business services and education sectors.

Trends: Employment is expected to grow at a rate well below the average. Prospects are better for sociologists with a quantitative background and training in applied fields such as crime, deviance and demography. The occupations in this group will depend to some extent on social programs and, with overall fiscal constraints, employment opportunities could be limited in the public administration sector. The group as a whole is currently facing labour market conditions that are among the least favourable, as indicated by their higher-than-average U.I. claimant rate and by the absence of any hard-to-fill vacancies.

Market Requirements: A university degree in sociology or a related field is usually required, with a master's or doctoral degree being necessary for some positions.

PSYCHOLOGISTS

Examples: Child Development Consultant, Industrial Psychologist, Social Psychologist, Ergonomist, Psychometrician, Clinical Psychologist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
2 810	3 066	256 385	641

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
374	-	1 587	1 961

- Competition Index: 3.06

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.44	2.21
2	2.08	2.87
3	10.08	18.10
4	5.62	7.51
5	4.26	8.39
6	68.17	57.17
7	4.81	2.43
8	1.37	1.10
9	1.11	0.22

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 52.3%
Males: 47.7%

Age Composition (1981)
Under 25 years: 7.4%
Over 54 years: 3.7%

Status Composition (1981)
Full-time: 87.6%
Part-time: 12.4%

Industry Concentration: These occupations are concentrated in the health/welfare and education sectors.

Trends: Employment should grow at a rate well below the average, and a large labour surplus is expected. Psychologist who have a clinical specialization should enjoy good employment opportunities as the maintenance of good mental health becomes an important issue. Counselling and industrial psychology are also becoming important fields in a increasingly complex society.

Market Requirements: Membership in the Quebec Association of Psychologists is required for those who wish to become recognized psychologists. The minimum admission criterion to the Association is a master's degree in psychology or a degree considered to be equivalent.

2331 SOCIAL WORKERS

Examples: Parole Officer, Case Supervisor, Family Counsellor

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
8 660	9 684	1 024	1 534	2 558

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
1 341	970	1 672	3 983

° Competition Index: 1.56

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.05	1	5.12
2	3.07	2	7.72
3	13.80	3	14.38
4	4.36	4	6.91
5	3.62	5	4.01
6	63.80	6	50.62
7	3.99	7	4.57
8	1.48	8	5.19
9	1.82	9	1.48

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	61.8%	Under 25 years:	4.4%	Full-time:	91.4%
Males:	38.2%	Over 54 years:	7.7%	Part-time:	8.6%

Industry Concentration: These occupations are concentrated in the health/welfare and public administration sectors.

Trends: Employment should grow at a rate well below the average, and labour supply is expected to exceed demand. Prospects depend to a large degree on social programs since most jobs are in the public administration and health/welfare sectors. Given current fiscal constraints, employment opportunities are rather limited in these occupations. Volunteer work is one way of attaining marketable skills to pursue a career in this field as competition is extremely keen.

Market Requirements: A university degree in sociology, psychology, criminology or social work is usually required. A master's degree may be an asset.

OCCUPATIONS IN WELFARE AND COMMUNITY SERVICES

Examples: Community Service Worker, Recreation Leader, Youth Club Supervisor, Recreation Specialist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
7 695	8 578	883	1 518	2 401

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 394	1 319	3 026	5 739

- Competition Index: 2.39

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.80	4.87
2	4.42	4.52
3	13.60	17.07
4	6.55	8.45
5	3.94	3.99
6	55.06	52.55
7	5.45	4.22
8	3.13	1.94
9	3.06	2.10

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 59.4%
Males: 40.6%

Age Composition (1981)
Under 25 years: 51.2%
Over 54 years: 4.7%

Status Composition (1981)
Full-time: 87.6%
Part-time: 2.4%

Industry Concentration: Jobs in these occupations are found in the following sectprs health/ welfare, public administration, miscellaneous services, leisure and recreation (particularly golft clubs and campgrounds).

Trends: Below-average employment growth is forecast, with supply exceeding demand. Many jobs in these occupations depend on government spending in a range of social service areas. Current budget constraints do not help the employment situation. Recreational opportunities are opening up in new workplaces such as factories, private colleges, day care centres and sporting goods retail outlets. Recognized qualifications in first aid and lifesaving as well as advanced knowledge and skills in indoor and outdoor sports are in demand.

Market Requirements: Secondary school graduation, or the equivalent, and a community college diploma in the relevant specialty are required. For some positions, a university degree in social work is necessary. Volunteer programs provide on way for young people to gain marketable skills. Many jobs are part-time or temporary, often evenings or weekends. Mobility is very important.

2343 LAWYERS AND NOTARIES

Examples: Lawyer, Notary

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
9 347	10 275	928	1 343	2 271

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
261	0	5 755	6 016

° Competition Index: 2.65

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.38	1	1.29
2	2.16	2	2.26
3	18.31	3	19.35
4	4.01	4	2.58
5	4.73	5	2.58
6	62.72	6	68.39
7	4.04	7	2.26
8	0.51	8	0.65
9	1.14	9	0.65

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 18.5%
Males: 81.5%

Age Composition (1981)
Under 25 years: 6.0%
Over 54 years: 8.3%

Age Composition (1981)
Under 25 years: 95.6%
Over 54 years: 4.4%

Industry Concentration: Jobs in these occupations are found in business services (legal and notarial firms) and public administration.

Trends: Employment should grow faster than the average rate, but a surplus of qualified labour is expected. The complexity of business regulations, the increase in patenting of technological innovations, and defining rights under family law and the new constitution are all factors that may increase job prospects for lawyers. New specialties, such as communications law, are opening up. Other fields, such as family law, though not new, have changed considerably. As data processing systems are used more and more for storing information on legal cases, the ability to use computers is becoming increasingly necessary.

Market Requirements: Lawyers must pass bar exams after one year of articling in a legal firm in order to be able to practise. Notaries must be recognized members of the Chamber of Notaries before they may open a notarial practice.

LIBRIRIANS, ARCHIVISTS AND CONSERVATIONS

Examples: Librarian, Cataloguer, Archivist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
3 863	4 105	242	937	1 179

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
273	429	1 606	2 308

° Competition Index: 1.96

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.90	1	2.14
2	3.02	2	6.42
3	13.66	3	12.84
4	6.12	4	6.42
5	2.48	5	2.45
6	63.65	6	61.47
7	5.71	7	3.06
8	0.33	8	4.28
9	1.12	9	0.92

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	74.1%	Under 25 years:	3.1%	Full-time:	86.5%
Males:	25.9%	Over 54 years:	14.9%	Part-time:	3.5%

Industry Concentration: These occupations are concentraded in the education, health/welfare and public administration sectors.

Trends: Well below-average employment growth is forecast, with supply outstripping demand. Chances for employment have been curtailed somewhat in public and educational institutions by government budgetary restraints. Prospects are better for those specializing in scientific and technical fields, particularly in research libraries. Knowledge of computerized information/index systems is in demand. Job prospects for archivists, who work mainly with unpublished materials in both the public and private sectors, are better than for librarians. Employment opportunities are best for conservators, who are engaged in the physical conservation of documents, as there are few qualified persons to fill the available positions. Other, non-traditional fields are now opening up: data bank management, information management and software libraries.

Market Requirements: A university degree in arts, social sciences or another field and a master's degree in library science are required. The jobs available in the public and semipublic sectors are often temporary of part-time. Hiring for short-term contracts is becoming increasingly frequent. Knowledge of computerized cataloguing systems is an asset.

2353 TECHNICIANS IN LIBRARY, MUSEUM AND ARCHIVAL SCIENCES

Examples: Paintings Restorer, Document Restorer, Taxidermist, Artifact and Fossil Restorer, Museum Cataloguer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	**Total requirements 1985-93**
2 014	2 090	76	357	433

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
195	75	209	479

° Competition Index: 1.11

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.31	1	2.92
2	3.31	2	13.75
3	20.80	3	23.75
4	5.22	4	10.42
5	2.24	5	2.56
6	54.99	6	36.25
7	6.86	7	3.75
8	2.33	8	5.00
9	0.93	9	1.67

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	77.9%	Under 25 years:	18.9%	Full-time:	92.1%
Males:	22.1%	Over 54 years:	11.2%	Part-time:	7.9%

Industry Concentration: Jobs in these occupations are found in the education, public administration and miscellaneous services sectors.

Trends: Well below-average employment growth is forecast, with the supply of qualified workers in the group exceeding demand. The proliferation of computerized library systems that catalogue publications and control circulation may increase job opportunities for technicians. With reduced public sector expenditures, however, occupational demand may be reduced.

Market Requirements: A community college diploma in library science technology is generally required. Many jobs are on a contract basis, and those available in the public and semipublic sectors are often temporary or part-time. Knowledge of computer cataloguing systems is an asset. For paintings, document and artifact restorers, a bachelor's degree in fine arts and a master's in restoration, offered in Ontario, or a community college diploma, also offered in Ontario, are necessary. Taxidermy is learnt by apprenticeship.

EDUCATIONAL AND VOCATIONAL CONSELLORS

Examples: Educational Adviser, Vocational Counsellor

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 249	1 288	39		241	280

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
142	0	613	755

* Competition Index: 2.70

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.04	1	1.78
2	3.19	2	2.37
3	19.64	3	39.05
4	6.16	4	2.96
5	5.65	5	5.33
6	52.32	6	42.60
7	3.26	7	4.14
8	2.10	8	1.18
9	4.64	9	0.59

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 40.8%
Males: 59.2%

Age Composition (1981)
Under 25 years: 5.0%
Over 54 years: 6.9%

Status Composition (1981)
Full-time: 87.0%
Part-time: 13.0%

Industry Concentration: These occupations are concentrated in the education and public administration sectors.

Trends: Below-average employment growth is forecast. Labour supply is expected to exceed demand. The number of jobs in this group depends on school enrolment and government spending. New job opportunities are limited owing to the anticipated drop in school enrolment, chiefly at the secondary level, and overall, fiscal constraints. At the college and university level, demand for these professionals may rise as ongoing education increases among the 25-50 age group. With a tight and complex labour market, students making career decisions will likely need more guidance from vocational counsellors.

Market Requirements: A university degree in counselling or psychology is required.

2711 UNIVERSITY TEACHERS

Examples: Professor, Assistant Professor, Lecturer, Laboratory Demonstrator, Department Head

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	**Total requirements 1985-93**
8 682	8 857	175	1 052	1 227

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
328	0	2 804	3 132

* Competition Index: 2.55

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.03	1	2.09
2	2.36	2	2.87
3	18.79	3	11.23
4	3.99	4	17.23
5	7.14	5	7.05
6	64.83	6	56.40
7	1.57	7	1.57
8	0.30	8	0.78
9	0.00	9	0.78

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	26.9%	Under 25 years:	4.8%	Full-time:	96.7%
Males:	73.1%	Over 54 years:	9.5%	Part-time:	3.3%

Industry Concentration: These occupations are concentrated in the university education sector.

Trends: Below-average employment growth is forecast, as well as an oversupply of qualified labour. Demand for university teachers is determined by student enrolment, which is expected to rise slowly but steadily. Adult education, paid educational leave and general interest courses among the 25-50 age group may help stimulate demand.

Market Requirements: A master's degree in the relevant specialty is the minimum requirement, and a doctorate is highly recommended.

ELEMENTARY AND KINDERGARTEN TEACHERS

Examples: Elementary School Teacher, Kindergarten Teacher

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
39 301	40 097	796		5 297	6 093

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
3 176	1 343	10 322	14 841

- Competition Index: 2.44

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.75	1	5.31
2	4.69	2	8.46
3	14.25	3	17.27
4	5.53	4	9.35
5	3.93	5	5.11
6	56.26	6	43.87
7	4.54	7	4.60
8	2.91	8	3.35
9	2.13	9	2.68

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 87.5%
Males: 12.5%

Age Composition (1981)
Under 25 years: 6.0%
Over 54 years: 5.1%

Status Composition (1981)
Full-time: 97.8%
Part-time: 2.2%

Industry Concentration: Jobs in these occupations are concentrated in the elementary-secondary education sector.

Trends: Employment should grow at a rate well below the average, with a net oversupply of qualified labour being expected. The job situation in these occupations is dependent on demographic change and school enrolment. The general outlook is not promising. By the mid 1980s, increasing enrolment should lead to an increase in demand for this group of teachers, although most vacancies may be filled from the lists of surplus teachers. Increased participation of women in the job market may boost demand for day care workers.

Market Requirements: A university degree in education, with specialization in elementary teaching or early childhood education, or a university degree in a relevant field plus a one-or two-year education course is usually required. For day care workers, a community college diploma in early childhood care may be an asset.

2733 SECONDARY SCHOOL TEACHERS

Examples: Secondary School Teacher

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
42 949	43 816	867	+	8 895	9 762

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
4 097	289	5 811	10 197

* Competition Index: 1.04

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.79	1	6.17
2	5.10	2	6.11
3	14.38	3	20.23
4	6.27	4	5.66
5	4.20	5	4.35
6	55.24	6	48.72
7	4.35	7	4.25
8	2.64	8	2.35
9	2.03	9	2.16

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	46.7%	Under 25 years:	2.8%	Full-time:	98.9%
Males:	53.3%	Over 54 years:	6.3%	Part-time:	1.1%

Industry Concentration: These occupations are concentrated in the elementary-secondary education sector.

Trends: Employment should grow at a rate well below the average. Demand for this occupational group depends on school enrolment, which is expected to decline somewhat at the secondary level. Growing demand for French-language instruction outside Quebec will boost employment for teachers having this specialty and opportunities should arise thoughout the country.

Market Requirements: A university degree in secondary education with specialization in the subject to be taught or a university degree in a relevant field plus a one- or two-year course in education is required. In vocational specialties, candidates can become qualified teachers either by obtaining a vocational teaching certificate, after completing a community college diploma in the subject or by obtaining a trade certificate in the case of trades for which a provincially regulated apprenticeship program exists.

ELEMENTARY AND SECONDARY SCHOOL TEACHING AND RELATED OCCUPATIONS, NOT ELSEWHERE CLASSIFIED

Examples: Visiting Teacher, Tutor, Study Supervisor

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
6 210	6 341	131	760	891

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
478	333	1 791	2 602

* Competition Index: 2.92

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.42	1	2.43
2	4.77	2	3.64
3	11.97	3	9.36
4	5.29	4	3.29
5	4.45	5	1.73
6	57.91	6	69.15
7	5.01	7	3.29
8	3.33	8	5.72
9	1.80	9	1.39

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 66.4%
Males: 33.6%

Age Composition (1981)
Under 25 years: 7.5%
Over 54 years: 10.8%

Status Composition (1981)
Full-time: N/A
Part-time: N/A

Industry Concentration: These occupations are concentrated in the elementary-secondary education sector.

Trends: Employment is expected to grow at a rate well below the average, with labour supply exceeding demand. As with elementary and secondary teachers, school enrolment will affect the employment prospects of workers in this occupational group. Increasing demand for French-language instruction outside Quebec may improve opportunities for teachers in this specialty.

2791 COMMUNITY COLLEGE AND VOCATIONAL SHOOL TEACHERS

Examples: Vocational Applied Arts Teacher, Welding Instructor, Business College Instructor, Typing Teacher, Commercial Art Teacher, Trade School Instructor

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
10 337	10 570	233	+	2 721	2 954

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
873	126	2 958	3 957

* Competition Index: 1.34

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.54	1	4.82
2	4.83	2	7.87
3	14.44	3	13.43
4	5.22	4	5.87
5	4.31	5	3.31
6	61.13	6	57.90
7	2.95	7	3.03
8	0.33	8	1.70
9	1.29	9	2.46

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	38.5%	Under 25 years:	3.4%	Full-time:	96.9%
Males:	61.5%	Over 54 years:	5.0%	Part-time:	3.1%

Industry Concentration: Jobs in these occupations are concentrated in the postsecondary/non-university education sector.

Trends: Employment growth significantly below the average is forecast, as well as a labour surplus. The slower population growth of recent years has weakened demand for workers in these occupations. However, if recurrent education, paid education leave, and general interest courses continue to grow among the 25-50 age group, this weaker demand may be partly offset. The growth in technical training and retraining resulting from technological changes in several fields should boost job opportunities for some of these teachers.

Market Requirements: For technical and technological subjects, a community college diploma or university degree in the subject to be taught plus three years' relevant experience is required. A teaching certificate is also necessary.

FINE ARTS TEACHERS, NOT ELSEWHERE CLASSIFIED

Examples: Music Professor, Art Instructor, Drama Instructor, Dance Instructor

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
3 594	3 688	94	+	393	487

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
718	226	321	1 265

* Competition Index: 2.60

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.77	1	3.12
2	3.98	2	10.16
3	15.08	3	14.20
4	3.51	4	5.43
5	4.75	5	2.77
6	65.52	6	58.78
7	4.28	7	2.42
8	1.77	8	1.85
9	1.33	9	1.27

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	68.3%	Under 25 years:	20.9%	Full-time:	78.7%
Males:	31.7%	Over 54 years:	12.4%	Part-time:	22.3%

Industry Concentration: Jobs in these occupations are found in the education sector, chiefly in fine arts schools and leisure and recreation programs (theatre, shows, etc...).

Trends: Employment growth significantly below the average is forecast, as well as a labour surplus. Demand for fine arts specialists from private schools and agencies is moderately sensitive to changing economic conditions.

Market Requirements: A university fine arts degree with concentration in the relavant specialty is generally required.

2795 TEACHERS OF EXCEPTIONAL STUDENTS, NOT ELSEWHERE CLASSIFIED

Examples: Instructor of the Blind, Teacher of Physically Handicapped Persons, Teacher of Mentally Handicapped Persons

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
9 366	10 256	890		1 576	2 466

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
1 280	2 238	3 155	6 673

* Competition Index: 2.71

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.02	1	7.05
2	4.86	2	8.18
3	16.67	3	20.70
4	6.06	4	9.44
5	3.94	5	4.34
6	57.81	6	41.66
7	2.88	7	2.71
8	1.91	8	3.65
9	1.84	9	2.27

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	63.8%	Under 25 years:	25.0%	Full-time:	91.8%
Males:	36.2%	Over 54 years:	3.1%	Part-time:	8.2%

Industry Concentration: Jobs in these occupations are concentrated in the educational and health/welfare sectors.

Trends: Employment is expected to grow at about the average rate. The supply of qualified labour in the group is expected to exceed demand. Like the other teaching occupations, these will be affected by demographic trends, in particular the slow growth of the school-age population now that the postwar baby-boom generation has reached adulthood. Job prospect for special education teachers have been spurred by funding for special education programs and will remain sensitive to cutbacks in government spending in this area. Society's growing acceptance and awareness of physically and mentally disabled people may contribute to better employment prospects for this group.

Market Requirements: A university degree in education, with specialization in special education, or a bachelor's degree in special education or a related field is generally required.

PHYSICIANS AND SURGEONS

Examples: Heart Specialist, Dermatologist, General Practitioner, Surgeon, Anesthetist, Pediatrician, Psychiatrist, Gynecologist, Radiologist, Geriatist, Emergency Physician

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
13 222	15 080	1 858		2 808	4 666

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
87	N/A	7 342	7 429

- Competition Index: 1.59

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.47	1	1.02
2	2.82	2	3.06
3	16.58	3	12.24
4	3.74	4	47.96
5	3.86	5	3.06
6	67.60	6	30.61
7	1.90	7	0.00
8	0.64	8	0.00
9	0.40	9	2.04

3. MAIN CHARACTERISTICS

Sex Composition (1981)	
Females:	18.4%
Males:	81.6%

Age Composition (1981)	
Under 25 years:	4.6%
Over 54 years:	16.9%

Status Composition (1981)	
Full-time:	96.0%
Part-time:	4.0%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector, chiefly hospitals and physicians' offices.

Trends: Above-average employment growth is forecast. The population/physician ratio is not expected to change, but the demand for specific fields of practice may increase while others will decrease. There are labour shortages in psychiatry and anesthesiology; and there is steady demand in general surgery, nuclear medicine, obstetrics, gynecology, diagnostic radiology, radiotherapy and urology. The growth of the elderly segment of the population has meant an increase in the number of patients suffering from cardiac problems, but the supply of physicians in this specialty has not kept up with recent demand. The inadequate monetary compensation for specialties requiring more years of training, the increased risk of malpractice suits, the drop in the number of hours worked by doctors in general, and the "brain drain" of physicians trained in Quebec may bring about shortages of qualified medical personnel in certain fields. Demand remains high in remote areas.

Market Requirements: A university degree in medicine and clinical training in a hospital are required.

3113 DENTISTS

Examples: Dentist, Oral Surgeon, Orthodontist, Periodontist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 534	2 888	354	300	654

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
11	N/A	1 247	1 258

* Competition Index: 1.92

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.89	1	0.00
2	2.47	2	0.00
3	10.12	3	8.33
4	4.84	4	0.00
5	2.14	5	0.00
6	73.45	6	83.33
7	2.17	7	8.33
8	1.35	8	0.00
9	0.56	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	10.4%	Under 25 years:	4.3%	Full-time:	84.9%
Males:	89.6%	Over 54 years:	17.4%	Part-time:	15.1%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector, chiefly dentists' offices.

Trends: Above-average employment growth is forecast, but labour supply should exceed demand. Dental health has made great strides over the last decade. The drop in the rate of tooth decay is linked to a variety of factors, including greater public awareness of the importance of dental hygiene. A shift is taking place from treatment to prevention. The increase in private dental insurance plans and the higher standard of living and education of the general population may improve opportunities for this group. The scope of dental services is widening all the time, and now encompasses root canal treatment and the fitting of crowns. Prospects appear good for orthodontists, periodontists and cosmetic dentistry specialists. Job opportunities are also opening up in dental research.

Market Requirements: A university degree in dentistry is required. One or two years' additional training are necessary for specialization.

VETERINARIANS

Example: Veterinarian

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
845	841	-4		142	138

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
25	0	270	295

- Competition Index: 2.14

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.19	1	0.00
2	5.48	2	3.70
3	12.26	3	22.22
4	15.12	4	3.70
5	5.12	5	0.00
6	56.67	6	46.67
7	3.45	7	0.00
8	0.71	8	3.70
9	0.00	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	13.9%	Under 25 years:	7.6%	Full-time:	96.3%
Males:	86.1%	Over 54 years:	8.9%	Part-time:	3.7%

Industry Concentration: Jobs in this occupational group are found in the agriculture and public administration sectors.

Trends: Employment in this group should see a net decline over the next few years, with labour supply surpassing demand. The number of jobs in this occupation is determined in part by the level of government spending. Given current budget constraints, prospects are not very good. Specialization in animal toxology and pathology may increase opportunities, which mainly exist with already-established veterinarian practices.

Market Requirements: A university degree in veterinary medicine is required. Membership in the Order of Veterinarians of Quebec is mandatory.

3117 OSTEOPATHS AND CHIROPRACTORS

Examples: Chiropractor, Osteopath

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
595	680	85		126	211

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2	75	0	77

° Competition Index: 0.36

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.95	1	0.00
2	2.80	2	0.00
3	16.97	3	0.00
4	9.39	4	0.00
5	2.31	5	0.00
6	56.18	6	100.00
7	2.47	7	0.00
8	5.11	8	0.00
9	0.82	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	27.4%	Under 25 years:	7.6%	Full-time:	95.2%
Males:	72.6%	Over 54 years:	13.2%	Part-time:	4.8%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector, chiefly paramedical practitioners' offices.

Trends: Above-average employment growth is forecast. The labour supply provided by the education system may not be sufficient to meet demand. The growing demand for alternative methods of medical treatment may help sustain the promising outlook for these occupations.

Market Requirements: Students wishing to become chiropractors must complete a community college diploma in health sciences, one year of sciences at the university level and a four-year program in a chiropractic college. Though not available in Quebec, this program is offered in Ontario, at the Canadian Memorial Chiropractic College, in Toronto.

HEALTH DIAGNOSING AND TREATING OCCUPATIONS, NOT ELSEWHERE CLASSIFIED

Examples: Podiatrist, Naturopathic Physician, Acupuncturist, Kinesiologist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
1 471	1 653	182 319	501

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
16	75	211	302

- Competition Index: 0.60

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.94	0.00
2	2.53	5.88
3	13.93	5.88
4	4.47	5.88
5	3.18	11.76
6	71.81	58.82
7	2.14	11.76
8	0.00	3.70
9	0.00	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 58.4%
Males: 41.6%

Age Composition (1981)
Under 25 years: 17.3%
Over 54 years: 8.6%

Status Composition (1981)
Full-time: 85.9%
Part-time: 14.1%

Industry Concentration: These occupations are concentrated in the health/welfare sector.

Trends: Above-average employment growth is forecast, with labour supply falling short of demand. In 1985 there were, depending on the definitions used, from 150 to 300 acupuncturists and 300 naturopathic physicians working full-time in Quebec. The growing demand for alternative methods of medical treatment may brighten the employment outlook for these occupations.

Market Requirements: The qualifications required for these occupations vary with the specialty. Students wishing to become acupuncturists should have a community college diploma in acupuncture. Those who want to practise as podiatrists must complete a community college diploma in health sciences and a three- or four-year course of study in podiatry. No podiatry training program is available in Canada, but some colleges in the United States offer a program. Membership in the Order of Podiatrists of Quebec is mandatory.

NURSES, REGISTERED, GRADUATE AND NURSES-IN-TRAINING

Examples: Graduate Nurse, Nurse Consultant, School Health Nurse, Psychiatric Nurse, Nursing Research Specialist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
46 656	53 196	6 540	19 281	25 821

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 023	12 378	3 486	17 887

* Competition Index: 0.69

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.39	1	7.98
2	4.66	2	9.24
3	16.43	3	29.28
4	6.03	4	8.22
5	3.51	5	5.40
6	58.38	6	34.11
7	2.91	7	2.25
8	1.32	8	1.47
9	1.39	9	2.04

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	91.2%	Under 25 years:	20.3%	Full-time:	70.9%
Males:	8.8%	Over 54 years:	4.8%	Part-time:	29.1%

Industry Concentration: These occupations are concentrated in the health/welfare sector. In Quebec, in 1985, approximately 78% of nurses worked in hospitals, 7% in rehabilitation centres and homes, 9% in community health, 3% in teaching and 3% in other services such as medical clinics, government services, and agencies.

Trends: Above-average employment growth is expected, and supply may not be able to keep up with demand. Forecasts point to a relative scarcity of nurses on the job market. The number of applications for admission to nursing programs has been falling in recent years. As the population ages, the demand for health care personnel to provide services for geriatric, chronic and long-term care will increase. The trend toward services outside acute care hospitals (clinics, rehabilitation and chronic care centres, senior citizens homes) is likely to create some job opportunities. In a number of hospitals, shortages exist at the moment in intensive care, cardiology, geriatrics, psychiatry and emergency care. These professionals are constantly in demand in institutions located in remote areas.

Market Requirements: For entry to these occupations, students must complete a community college diploma or university degree in nursing and pass the exams set by the Order of Nurses of Quebec. New

graduates must be prepared to do shift work (day, evening or night shift any day of the week, including statutory holidays and during the summer months). The majority of jobs are temporary or casual. Permanent status is usually obtained after seven or eight years' experience. Bilingualism is an asset, opening up job opportunities in French-speaking areas of Canada. There are also opportunities outside Canada, notably in the United States.

REGISTERED NURSING ASSISTANTS

Examples: Nursing Assistant, Practical Nurse

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
20 304	23 152	2 848	4 394	7 242

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 488	354	-	1 842

- Competition Index: 0.25

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	6.08	6.73
2	5.97	10.66
3	18.95	26.25
4	8.47	13.46
5	3.65	5.05
6	49.25	25.86
7	3.27	5.78
8	2.61	3.37
9	1.74	2.86

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 88.0%
Males: 12.0%

Age Composition (1981)
Under 25 years: 24.0%
Over 54 years: 3.9%

Status Composition (1981)
Full-time: 67.9%
Part-time: 32.1%

Industry Concentration: These occupations are concentrated in the health/welfare sector.

Trends: Above-average employment growth is forecast. Labour supply, which consists chiefly of secondary school graduates, is expected to fall short of demand. Current market trends point toward a scarcity of available workers in these occupations. The drop in the number of applications to nursing schools indicates that there will soon be a shortage of qualified personnel of a certain level of experience and training. Promising job opportunities may exist in less-intensive care facilities such as convalescent homes, day care centres, chronic care and rehabilitation centres, and diagnostic and therapeutic centres. The expansion of home care programs may also stimulate demand for these professionals.

Market Requirements: Completion of the secondary long vocational course in practical nursing and on-the-job training in a hospital are required. Membership in the Professional Corporation of Nursing Assistants of Quebec is mandatory. Many of the jobs in this field are temporary, part-time or casual and may involve shift work (day, evening or night). Geographic mobility is an asset.

AUDIO AND SPEECH THERAPISTS, PLUS 3137 -- PHYSIOTHERAPISTS AND 3138 -- OCCUPATIONAL THERAPISTS

3136
3137
3138

Examples: Audio Therapist, Speech Therapist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
3 913	4 442	529	862	1 391

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
N/A	703	2 249	2 952

- Competition Index: 2.12

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	N/A	1	N/A
2	N/A	2	N/A
3	N/A	3	N/A
4	N/A	4	N/A
5	N/A	5	N/A
6	N/A	6	N/A
7	N/A	7	N/A
8	N/A	8	N/A
9	N/A	9	N/A

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: N/A
Males: N/A

Age Composition (1981)
Under 25 years: N/A
Over 54 years: N/A

Status Composition (1981)
Full-time: 100%
Part-time: -

Industry Concentration: Employment in these occupations is concentrated in the health/welfare institutions, educational services and public administration sectors.

Trends: Employment is expected to grow at an above-average rate, with labour supply exceeding demand. Reflecting their industry concentration, these occupations are sensitive to government expenditure policies. Demand has increased recently for the services offered by these professionals because of the growing trend to early detection of speech and hearing problems. The increase in the elderly segment of the population with chronic conditions or with rehabilitation needs, the public acceptance of disabled persons, efforts to further the social integration of these people, and advances in medical procedures brighten the job prospects in this occupational group. There is a shortage of physiotherapists almost everywhere in Quebec, and particularly outside the major urban centres. Not only in hospitals, but also in schools, industry and sports facilities, physiotherapists are in increasing demand.

Market Requirements: A bachelor's degree in speech or audio therapy plus a master's in one field or the other, or a bachelor's in social science, with a major in psychology, plus a master's in

communication disorders is required. Membership in the Professional Corporation of Speech Therapists and Audiologists of Quebec is mandatory only for those who wish to use the title of speech or audio therapist. Occupational therapists require a bachelor's degree in occupational therapy, and physiotherapists a bachelor's in physiology.

PHARMACISTS 3151

Examples: Hospital Pharmacist, Industrial Pharmacist, Pharmacist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
3 912	4 558	646	834	1 480

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
101	0	1 758	1 859

° Competition Index: 1.26

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.48	1	0.84
2	2.91	2	2.52
3	21.48	3	28.57
4	4.79	4	5.88
5	3.82	5	3.36
6	58.51	6	53.78
7	2.93	7	1.68
8	1.32	8	2.52
9	0.77	9	0.84

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	38.8%	Under 25 years:	8.7%	Full-time:	91.0%
Males:	61.2%	Over 54 years:	12.1%	Part-time:	9.0%

Industry Concentration: Jobs in these occupations are found in the retail trade (pharmacies) and health/welfare sectors.

Trends: Above-average employment growth is expected, with the supply of qualified labour more or less meeting demand. However, this situation may change in hospitals as the increasing complexity of drug therapy and the proliferation of multidiagnostic and treatment schedules create a need for close monitoring by pharmacists. The aging of the population requiring more treatments and drugs, as well as the growing number of pharmaceutical products, will contribute to positive job prospects for this occupation.

Market Requirements: Graduation from a four-year university course in pharmacy and 600 hours of postgraduate practical training are required for membership in the Order of Pharmacists of Quebec.

3152 DIETITIANS AND NUTRITIONISTS

Examples: Dietitian, Nutritionist, Diet Therapist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
1 098	1 243	145		217	362

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
179	279	597	1 055

* Competition Index: 2.91

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.77	1	5.14
2	2.46	2	7.48
3	19.82	3	22.43
4	3.77	4	9.35
5	2.89	5	2.34
6	60.70	6	46.73
7	4.65	7	3.27
8	1.93	8	2.80
9	0.00	9	0.47

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 91.5%
Males: 8.5%

Age Composition (1981)
Under 25 years: 15.1%
Over 54 years: 1.5%

Status Composition (1981)
Full-time: 89.0%
Part-time: 11.0%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector, chiefly hospitals.

Trends: Above-average employment growth is forecast, but labour supply should surpass demand. Greater public awareness of the importance of a healthy diet suggests that dietitians will be required in a broader range of fields, reaching beyond therapeutic dietetics to prevention and nutritional education. While most dietitians and nutritionists now work in health care institutions or the food processing industry, they will increasingly be in demand to work as consultants and educators in schools, day care, outdoor recreation centres and community health establishments. New opportunities are also opening up in the area of consumer awareness, with information campaigns designed to promote healthful eating habits.

Market Requirements: Either a community college diploma in food service supervision or a university degree in dietetics and nutrition is required, depending on the degree of specialization. Membership in the Professional Corporation of Dietitians of Quebec is mandatory only for those who wish to use the title of dietitian.

OPTOMETRISTS

Example: Optometrist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
833	953	120	141	261

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
7	0	175	182

- Competition Index: 0.70

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.62	1	0.00
2	3.78	2	0.00
3	11.12	3	0.00
4	4.86	4	16.67
5	2.75	5	0.00
6	63.65	6	66.67
7	2.18	7	0.00
8	0.46	8	0.00
9	0.57	9	16.67

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 24.3%
Males: 75.7%

Age Composition (1981)
Under 25 years: 9.5%
Over 54 years: 12.8%

Status Composition (1981)
Full-time: 100.0%
Part-time: 0.0%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector, chiefly paramedical practitioners' offices.

Trends: Above-average employment growth is forecast, and the overall prospects for the profession are good. It is anticipated that supply will fall short of demand. The growing number of people over age 45 who are expected to need eye care, increasing demand for frequent eye examinations for children to ensure such abilities as depth and colour perception, and the greater importance given to good vision in general are factors that should benefit this professional group.

Market Requirements: A university degree in optometry is required. Membership in the Quebec Association of Optometrists is mandatory.

3154 DISPENSING OPTICIANS

Example: Optician

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
553	636	83	102	185

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
12	N/A	175	187

* Competition Index: 1.01

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.00	1	14.29
2	0.67	2	14.29
3	18.46	3	14.29
4	6.21	4	0.00
5	2.01	5	0.00
6	47.28	6	50.00
7	4.70	7	7.14
8	0.67	8	0.00
9	0.00	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	28.7%	Under 25 years:	23.8%	Full-time:	93.5%
Males:	71.3%	Over 54 years:	5.9%	Part-time:	6.5%

Industry Concentration: Jobs in this occupational group are found in the trade sector and in health services, chiefly paramedical practitioners' offices.

Trends: Above-average employment growth is forecast, along with an overall balance between supply and demand. The demand for dispensing opticians should be stimulated by a growing segment of the population over age 45, children receiving more screening tests, more widespread use of contact lenses, and the increasing number of people likely to own more than one pair of corrective lenses. There should be continuing employment opportunities in particular in the smaller urban centres.

Market Requirements: Candidates must complete a community college diploma and pass the entrance exams for membership in the Order of Dispensing Opticians of Quebec.

RADIOLOGICAL TECHNOLOGISTS AND TECHNICIANS

Examples: Nuclear Medicine Technologist, Diagnostic Radiological Technician, Radiotherapy Technician, Diagnostic Medical Sonographer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
3 140	3 581	441 564	1 005

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
221	836	88	1 145

- Competition Index: 1.14

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.58	7.09
2	2.15	3.73
3	15.51	24.63
4	5.96	8.96
5	3.07	3.73
6	61.90	44.03
7	3.29	4.10
8	2.04	1.87
9	1.44	1.87

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 78.5%
Males: 21.5%

Age Composition (1981)
Under 25 years: 21.3%
Over 54 years: 3.3%

Status Composition (1981)
Full-time: 82.9%
Part-time: 17.1%

Industry Concentration: These occupations are concentrated in the health/welfare sector.

Trends: Above-average employment growth is forecast, with supply more or less meeting demand. Hospital budgetary restraints may make it difficult for new graduates to enter the job market. Many full-time hospital jobs for radiological technicians have been changed to part-time positions. Technological advances should spur demand for ultrasound technicians and nuclear magnetic resources. At the same time, some decline in demand for X-ray technicians is expected. Employment opportunities are best in hospitals serving sparsely populated areas.

Market Requirements: A community college diploma is required, and new graduates must pass the entrance exams for membership in the Order of Radiology Technicians of Quebec. A quota has recently been set on admissions to the Quebec community college (CEGEP) radiotherapy program. Bilingualism is an asset. There are some job opportunities in these occupations outside Canada.

3156 MEDICAL LABORATORY TECHNOLOGISTS AND TECHNICIANS

Examples: Biochemistry Technologist, Microbiology Technologist, Electron Microscopy Technologist, Medical Laboratory Technician, Veterinary Laboratory Technician

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
8 584	9 732	1 148	889	2 037

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
457	1 292	680	2 429

° Competition Index: 1.19

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.42	1	4.36
2	3.39	2	6.18
3	16.88	3	26.00
4	5.24	4	10.00
5	4.74	5	7.45
6	61.10	6	40.18
7	2.58	7	2.91
8	1.53	8	1.45
9	1.13	9	1.45

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 75.7%
Males: 24.3%

Age Composition (1981)
Under 25 years: 21.6%
Over 54 years: 3.3%

Status Composition (1981)
Full-time: 89.6%
Part-time: 10.4%

Industry Concentration: These occupations are concentrated in the health/welfare sector.

Trends: Above-average employment growth is forecast, with labour supply more or less meeting demand. These occupations remain sensitive to government spending policies. The concern over rising medical costs may limit employment growth. Prospects could brighten, however, because of the growing reliance on laboratory tests for detection, diagnosis and treatment of cancer and heart disease. Advances in clinical research and bio-engineering may lead to increased demand for personnel to operate new laboratory equipment. Lab technicians' duties are changing as more operations become automated: in biochemistry, for instance, the testing equipment itself now reads the parameters and tells whether the samples are normal or not. In addition to basic medical training, familiarity with computers and equipment maintenance is desirable.

Market Requirements: A community college diploma in medical laboratory technology is required. Bilingualism is an asset. Many hospital jobs are part-time, temporary or casual. Working hours vary.

DENTURISTS, PLUS 3158 -- DENTAL HYGIENISTS/ASSISTANTS AND 3161 -- DENTAL LABORATORY TECHNICIANS

3157
3158
3161

Examples: Oral Hygienist, Orthodontic Technician, Dental Ceramist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
5 308	6 014	706	1 599	2 305

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
629	2 225	-	3 171

* Competition Index: 1.38

2. DISTRIBUTION BY REGION OF QUEBEC (for 3157 only)

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.99	1	2.86
2	5.83	2	4.93
3	14.96	3	14.31
4	2.99	4	7.63
5	2.83	5	3.50
6	67.09	6	59.14
7	2.52	7	3.82
8	0.00	8	1.75
9	0.79	9	2.07

3. MAIN CHARACTERISTICS (for 3157 only)

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	75.8%	Under 25 years:	41.3%	Full-time:	90.7%
Males:	24.2%	Over 54 years:	4.9%	Part-time:	9.3%

Industry Concentration: Jobs in these occupations are concentrated in the health/welfare sector (dentists' offices) and the scientific and professional equipment manufacturing sector.

Trends: Above-average employment growth is forecast, but supply should exceed demand. The growing emphasis being placed on orthodontic and cosmetic dental work, as well as an aging population's need for crowns and dentures, could spur growth in demand for denturists and dental laboratory technicians. Several regions indicate shortages of these professionals outside the main urban centres.

Market Requirements: A community college diploma in denturology, dental hygiene or dental technology is required. Membership in the Order of Denturologists, the Order of Dental Hygienists or the Order of Dental Technicians is required, depending on the occupation. Students who are able to gain some professional experience, even part-time, during the third year of their studies have an advantage. For dental assistants, a minimum of eleven years of schooling together with typing and bookkeeping skills are required. For technicians specializing in orthodontics or prosthodontics, two career paths are available: a community college diploma in manufacturing technology, plus a two- or three-year program in prostho-orthodontics, or a five-year apprenticeship or training program while in employment.

3313 PRODUCT AND INTERIOR DESIGNERS

Examples: Exhibition and Display Designer, Fashion Designer, Stained-Glass Artist, Securities Designer, Fabric Designer, Furniture Designer, Office Space Planner

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
7 069	7 922	858	861	1 719

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
529	1 698	437	2 264

* Competition Index: 1.55

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.31	1	1.56
2	2.63	2	3.60
3	9.65	3	16.28
4	5.58	4	6.10
5	2.07	5	1.88
6	73.59	6	67.61
7	2.82	7	1.56
8	0.81	8	0.63
9	0.55	9	0.78

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	46.3%	Under 25 years:	22.7%	Full-time:	89.7%
Males:	53.7%	Over 54 years:	11.2%	Part-time:	10.3%

Industry Concentration: Most of the jobs in these occupations are in the business services, retail trade and clothing sectors.

Trends: Above-average employment growth is forecast, but labour supply should exceed demand. The design of high-technology products, particularly those manufactured for industries, and the emphasis placed on aesthetic appeal, practicality and safety may stimulate demand for product designers. As computer-aided design (CAD) technology is used more and more in business, designers will have to become familiar with its application to their particular specialty.

Market Requirements: A community college diploma in the relevant field is usually required. Employers look for candidates who have good portfolios and are abreast of the latest developments in their fields. For industrial product designers, graduation from a five-year bachelor's program in industrial design is an asset.

ADVERTISING AND ILLUSTRATING ARTISTS

Examples: Commercial Artist, Advertising Layout Person, Lettering Artist, Videotex Page Designer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
4 595	5 088	493	516	1 009

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
805	677	385	1 867

- Competition Index: 1.85

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.47	3.71
2	1.84	4.43
3	13.41	21.44
4	4.36	4.95
5	2.22	2.78
6	73.45	57.84
7	1.74	2.47
8	0.73	1.24
9	0.79	1.13

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 30.8%
Males: 69.2%

Age Composition (1981)
Under 25 years: 24.6%
Over 54 years: 4.6%

Status Composition (1981)
Full-time: -
Part-time: -

Industry Concentration: Jobs in these occupations are found in business services, miscellaneous services, printing and publishing.

Trends: Employment is expected to grow at about the average rate, with labour supply more or less meeting demand. A renewed emphasis on visual appeal has benefited commercial artists. Artists with exceptional talents and skills are most likely to be employed. Portfolios are as important as qualifications.

Market Requirements: Training can be acquired in a number of ways: a community college diploma, either in graphic arts or commercial design; a bachelor's degree in graphic design; a bachelor's degree in graphic design; or a university degree in art, with emphasis on its applications to specific fields such as medicine or electronics.

Examples: Photographer, Scientific Photographer, Commercial Photographer, Aerial Photographer, Television Camera Operator

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
2 177	2 385	208		224	432

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
438	52	-	490

* Competition Index: 1.13

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.78	1	3.05
2	0.98	2	4.57
3	17.54	3	15.81
4	6.12	4	6.10
5	2.55	5	2.67
6	66.48	6	61.90
7	3.70	7	2.86
8	0.55	8	2.10
9	0.30	9	0.95

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	12.2%	Under 25 years:	17.1%	Full-time:	N/A
Males:	87.8%	Over 54 years:	7.1%	Part-time:	N/A

Industry Concentration: Jobs in these occupations are found in the miscellaneous business services sector (photography) and the radio and television broadcasting sector.

Trends: Below-average employment growth is forecast. In our view, the projected labour supply from the regular education system underestimates real supply, which should be more substantial. Generally speaking, the job market for this occupational group is rather bleak, despite a few bright spots. The increasing use of visual aids in business to promote products and of photographs in medical research will provide some employment opportunities for photographers. However, the technology-induced fall in camera prices and increases in quality may translate into a decline in demand for the professional photographer. The widening use of VCR machines at social functions such as weddings and other group celebrations may be a factor contributing to the demand for camera operators. Most opportunities are part-time, and there is stiff competition for vacancies. Technological advances and the increased specialization of these professionals will make entry to the job market even more difficult.

Market Requirements: For students wishing to pursue a career in one of these occupations, a variety of educational avenues are available, ranging from a community college diploma in photography

to a course in a private photography school or an apprenticeship. Both technical and artistic skills are required for many positions. For movie camera operators, a community college diploma in film and completion of photography courses are necessary. For reporter/camera operators and television camera operators, a community college diploma in communications is a definite asset.

PRODUCERS AND DIRECTORS, PERFORMING AND AUDIO-VISUAL ARTS

Examples: Filmmaker, Dramatic Director, Program Director, Broadcasting Producer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
3 392	3 691	299		738	1 037

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
419	166	32	617

- Competition Index: 0.59

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.55	2.84
2	1.26	2.03
3	9.72	10.34
4	2.05	1.42
5	1.71	1.83
6	79.41	77.89
7	2.55	2.23
8	1.00	1.42
9	0.76	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 89.0%
Males: 11.0%

Age Composition (1981)
Under 25 years: 7.2%
Over 54 years: 8.1%

Status Composition (1981)
Full-time: 96.6%
Part-time: 3.4%

Industry Concentration: Jobs in these occupations are found in radio and television broadcasting and in recreation services.

Trends: Below-average employment growth is expected. The expansion of films, commercials and, more recently, videos may help open job opportunities for directors and producers.

Market Requirements: The training required varies with the profession, ranging from a community college diploma in theatre, for theatre producers and directors, or in communications, for technical directors and filmmakers, to a university degree in fine arts, music, communications or art history.

3337 RADIO AND TELEVISION ANNOUNCERS

Examples: Newscaster, Radio Broadcaster, Record Librarian, Disc Jockey

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 357	1 440	83	251	334

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
539	75	0	614

* Competition Index: 1.84

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.43	1	8.83
2	7.65	2	7.61
3	13.56	3	21.16
4	6.05	4	5.02
5	4.88	5	5.48
6	48.03	6	43.84
7	4.74	7	2.59
8	4.52	8	3.65
9	3.94	9	1.83

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	78.0%	Under 25 years:	27.3%	Full-time:	86.7%
Males:	22.0%	Over 54 years:	4.3%	Part-time:	13.3%

Industry Concentration: These occupations are concentrated in radio and television broadcasting.

Trends: Employment is expected to grow at a rate well below the average. The growing number of radio and television stations, including cable, will profide some employment opportunities. Many of the jobs available are on a contract basis.

Market Requirements: The qualifications required for these occupations vary with the speciality. For broadcasters and disc jockeys, a community college diploma in communications is an advantage.

WRITERS AND EDITORS

3351

Examples: Advertising Ideas Person, Journalist, News Reporter, Critic, Technical Writer, News Editor, Picture Editor

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	**Total requirements 1985-93**
6 839	7 574	735	1 573	2 308

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
650	150	1 939	2 739

* Competition Index: 1.19

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.79	1	2.88
2	1.90	2	4.33
3	12.02	3	22.44
4	4.10	4	4.97
5	2.32	5	3.21
6	70.92	6	56.73
7	4.99	7	2.56
8	1.13	8	1.44
9	0.83	9	1.44

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	38.8%	Under 25 years:	8.7%	Full-time:	93.3%
Males:	61.2%	Over 54 years:	12.1%	Part-time:	6.7%

Industry Concentration: These occupations are concentrated in publishing, advertising and miscellaneous services.

Trends: Below-average employment growth is forecast. The demand for technical writers may be strong, resulting from the growing need to prepare instructions for complex scientific equipment. The increasing popularity of magazines and related publications should spur employment opportunities for publication writers and editors. Familiarity with new office equipment and computer systems is sought. Word processors have, to a certain extent, automated writers' and editors' repetitive tasks such as proofreading and editing.

Market Requirements: The qualifications required vary from one occupation to the next: for technical writers, a community college diploma in pure or applied science or a university degree in a related field is needed; for editors, editorial writers and journalists, a community college diploma in communications or a university degree in journalism or communications is necessary.

3355 TRANSLATORS AND INTERPRETERS

Examples: Translator, Interpreter, Linguist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 890	3 145	255	1 007	1 262

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
300	71	2 222	2 593

° Competition Index: 2.05

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.43	1	0.56
2	0.28	2	1.96
3	10.57	3	20.11
4	1.60	4	4.75
5	0.52	5	2.79
6	71.14	6	64.25
7	14.38	7	3.35
8	0.31	8	1.68
9	0.77	9	0.56

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	78.5%	Under 25 years:	21.4%	Full-time:	89.8%
Males:	21.5%	Over 54 years:	3.3%	Part-time:	10.2%

Industry Concentration: Jobs in these occupations are concentrated in the public administration and miscellaneous services sectors.

Trends: Below-average employment growth is forecast, with labour supply exceeding demand. Job opportunities for translators are stimulated by the federal government's bilingualism policy. The need to translate the increasing number of scientific and technical manuals will spur the demand for those trained in this area. There is a growing trend toward machine translation, particularly for technical material.

Market Requirements: A university degree in translation and the knowledge of English, French and sometimes a third language are required. No interpreter training program exists in Quebec, but a bachelor's degree in interpretation is offered in Ontario.

COACHES, TRAINERS AND INSPECTORS -- SPORTS AND RECREATION

3370

Examples: Physical Training Teacher, Athletic Coach, Recreational Supervisor, Sports and Recreation Manager

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
6 028	6 525	497		421	918

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
N/A	75	1 254	1 829

* Competition Index: 1.99

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	N/A	1	N/A
2	N/A	2	N/A
3	N/A	3	N/A
4	N/A	4	N/A
5	N/A	5	N/A
6	N/A	6	N/A
7	N/A	7	N/A
8	N/A	8	N/A
9	N/A	9	N/A

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	44.8%	Under 25 years:	51.9%	Full-time:	72.9%
Males:	55.2%	Over 54 years:	2.4%	Part-time:	27.1%

Industry Concentration: Jobs in these occupations are found in the recreation services, public administration and education services sectors.

Trends: Below-average employment growth is forecast, with labour supply surpassing demand. Competition in the job market is stiff between university graduates in recreation or physical education and community college graduates in special care counselling. Employment prospects in these occupations depend in part on government spending policies. Given the current budget constraints, possible cutbacks in sports and recreation may make it more difficult for new graduates to find jobs. However, the growing public awareness of the importance of good general health may boost demand for those working in sports.

Market Requirements: The qualifications required for these occupations range from a community college diploma to a university degree in the relevant field.

4111 SECRETARIES AND STENOGRAPHERS

Examples: Legal Secretary, Executive Secretary, Stenotypist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
115 935	126 154	10 219	24 019	34 238

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
14 325	13 133	2 317	29 775

° Competition Index: 0.87

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.85	1	6.30
2	3.33	2	7.09
3	15.24	3	19.78
4	5.10	4	8.69
5	3.57	5	4.24
6	61.96	6	43.98
7	3.98	7	4.61
8	1.73	8	2.94
9	1.25	9	2.36

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	98.5%	Under 25 years:	32.1%	Full-time:	91.2%
Males:	1.5%	Over 54 years:	5.4%	Part-time:	8.8%

Industry Concentration: Jobs in these occupations are found in a number of service sectors.

Trends: Below-average employment growth is expected, but the large size of this occupational group practically guarantees a large number of job openings. The growing use of office automation technology will bring about significant changes in secretaries' duties and the organization of secretarial work. This occupational group must now have advanced training in the operation of word processors. Many specific applications of new office automation such as files, text and sometimes graphics can be integrated and this too requires greater skills on the part of secretaries. Secretarial jobs often involve a variety of duties, such as reception, computer operation and bookkeeping. Employers are increasingly looking for secretaries with skills in a range of fields, and especially in operation of automated office equipment. There is also a shortage of bilingual secretaries.

Market Requirements: Completion of either the secondary long vocational course in business techniques or the community college secretarial science program is required. Familiarity with word processing and other automated office equipment is increasingly in demand, and bilingualism is often necessary. Many job offers list a range of tasks, including reception, computer operation and bookkeeping.

TYPISTS AND CLERK-TYPISTS

Examples: Telex Operator, Typist, Word Processing Operator

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
21 873	23 740	1 867		4 533	6 400

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
198	165	68	431

* Competition Index: N/A

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.31	1	2.22
2	1.83	2	6.01
3	14.41	3	13.79
4	2.90	4	2.54
5	1.39	5	0.89
6	72.19	6	61.92
7	4.43	7	10.72
8	0.68	8	0.80
9	0.86	9	1.11

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 98.4%
Males: 1.6%

Age Composition (1981)
Under 25 years: 42.3%
Over 54 years: 4.9%

Status Composition (1981)
Full-time: 91.9%
Part-time: 8.1%

Industry Concentration: Jobs in these occupations are found in the public administration, finance and insurance, and business services sectors.

Trends: Below-average employment growth is forecast. Though office automation has slowed the rate of increase, employment opportunities, particularly part-time, will continue to exist, owing to the sheer size of this occupational group. Prospects are best for those who have knowledge and experience in operating automated office equipment, especially word processors. This technology is contributing to new forms of work organization for typists, ranging from word processing centres to the organization of groups of specialists through integration of different office automation applications. The introduction of word processors has also created several new occupations, such as formatting specialists, correction entry clerks, word processing supervisors and training specialists. Typing duties are now often performed by word processing technicians or specialists.

Market Requirements: Completion of the secondary long vocational course in business techniques, stenographer-typist or office assistant option, or the regular secondary course with emphasis on typing is generally necessary. Normal requirements are a typing speed of 40 to 60 words per minute and good spelling. Ability to operate a word processor is increasingly required. Bilingualism is an asset. Depending on the type of business, knowledge of the dictaphone, telex, bookkeeping, billing, order taking and filing may be required.

4131 BOOKKEEPERS AND ACCOUNTING CLERKS

Examples: Ledger Clerk, Cost Clerk, Accounting Clerk, Accounts Receivable Clerk, Assessment Clerk NEC, Bookkeeping Clerk

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
96 840	104 748	7 908	16 303	24 211

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
4 411	5 086	3 320	12 817

° Competition index: 0.53

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.67	1	4.21
2	2.82	2	5.48
3	11.40	3	15.25
4	4.92	4	6.74
5	2.70	5	3.16
6	67.63	6	56.97
7	4.22	7	3.64
8	2.38	8	3.01
9	1.25	9	1.52

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	75.5%	Under 25 years:	30.4%	Full-time:	87.5%
Males:	24.5%	Over 54 years:	8.6%	Part-time:	12.5%

Industry Concentration: Jobs in these occupations are found in the trade sector and the finance and insurance sector.

Trends: Below-average employment growth is forecast. In our view, the labour supply projection given above is underestimated because much of the labour supply for these occupations comes from the secondary level, which is excluded from the forecast. Technological advances are improving electronic processing, with the result that small business computers and electronic cash registers can now perform a variety of bookkeeping and inventory functions. This will tend to reduce job opportunities for bookkeepers. Prospects are best for those with knowledge of information systems and data entry.

Market Requirements: Completion of the secondary long vocational course in business techniques, accounting clerk option, is required for payroll, accounting and bookkeeping clerks. In the case of bookkeeping, however, employers encourage continuing study at the university level on a part-time basis. For posting clerks, secondary school completion in the office clerk option is necessary; and for bookkeepers, a community college diploma in business administration. Specific skills on certain computerized accounting systems are sometimes required. Knowledge of data processing is a major asset.

CASHIERS AND TELLERS

4133

Examples: Electronic Cash Register Cashier, Bank Teller, Ticket Agent, Grocery Checker, Self-Serve Gas Station Cashier

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	**Total requirements 1985-93**
61 767	67 694	5 927	18 111

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
8 875	3 259	1 201	13 335

* Competition Index: 0.74

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.47	1	5.46
2	3.48	2	6.77
3	14.60	3	15.21
4	6.27	4	6.81
5	3.76	5	3.20
6	60.09	6	51.31
7	4.72	7	4.46
8	2.06	8	3.87
9	1.57	9	2.90

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	90.6%	Under 25 years:	52.3%	Full-time:	67.4%
Males:	9.4%	Over 54 years:	3.4%	Part-time:	32.6%

Industry Concentration: Jobs in these occupations are found in the retail trade, finance and insurance, and hospitality services sectors.

Trends: About-average employment growth is forecast. The labour supply figure given above is, in our view, underestimated because much of the supply for this group comes from the secondary level. Cashiers' opportunities for employment, often of a part-time nature, exist in all sorts of retail businesses. Experience in operating an electronic cash register is frequently required, since its use has spread enormously. In banking, technological advances are limiting employment growth in this occupational group. Bank tellers' duties are changing dramatically: electronic funds transfer (EFT) means that the physical transfer of paper bank notes, cheques and money orders is replaced with messages sent by electronic impulses; automated teller machines (ATMs) allow customers to make cash withdrawals and deposits, deposit cheques, and transfer funds between accounts; and counter terminals are now equipped to enable tellers to transmit deposit and other information, a task that used to be performed by data entry clerks at the computer centre.

Market Requirements: Secondary school graduation and on-the-job training are generally necessary.

INSURANCE, BANK AND OTHER FINANCE CLERKS

4135

Examples: Securities Clerk, Bank Clerk, Brokerage Clerk, Foreign Exchange Clerk

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
12 037	16 065	4 028	3 036	7 064

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
652	255	78	985

* Competition Index: 0.14

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.95	1	2.65
2	2.63	2	2.27
3	13.16	3	7.58
4	4.84	4	4.92
5	2.06	5	1.89
6	69.38	6	74.27
7	3.78	7	4.42
8	1.29	8	1.64
9	0.91	9	0.25

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	80.9%	Under 25 years:	37.2%	Full-time:	96.3%
Males:	19.1%	Over 54 years:	4.8%	Part-time:	3.7%

Industry Concentration: Jobs in these occupations are found in the finance and insurance sector.

Trends: Employment is expected to grow at faster than the average rate, based on the outlook in the finance and insurance sector, where these occupations are concentrated. In insurance, clerks' duties have been reorganized as a result of technological changes. Many archival tasks have been computerized. Contract standardization has eliminated many of the duties formerly assigned to policy writers. Now it is the computer that decides whether or not to accept the proposed risk and determines and prints out the terms and rates. Policy writing clerks have to enter and code computer data. Writing and archiving are done simultaneously. Raters (those who calculated insurance rates) have become redundant because of software packages. However, with access to customer files and rates, insurance clerks can spend more time with customers and use the data to make themselves more competent. In banking, network reorganization and the computerization of many transactions have brought about a reorientation of clerks' duties toward the analysis of customer files and the provision of a widening range of services. Human relations and sales skills are in demand. The number of part-time positions in these occupations should climb rapidly.

Market Requirements: Familiarity with computer systems is becoming essential. Human relations and sales skills are assets. For insurance clerks, a community college diploma in business administration, insurance option, is an advantage. Bank clerks should have a community college diploma in business administration, finance option. For credit clerks and real estate clerks, secondary school graduation is essential.

STATISTICAL CLERKS

Examples: Statistics Clerk, Compiler, Actuarial Clerk

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 521	1 638	117		258	375

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
45	288	0	333

* Competition Index: 0.89

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.33	1	5.56
2	0.80	2	3.70
3	13.55	3	3.70
4	2.33	4	1.85
5	2.08	5	5.56
6	65.05	6	66.67
7	11.65	7	9.26
8	0.92	8	1.85
9	1.29	9	1.84

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 65.0%
Males: 35.0%

Age Composition (1981)
Under 25 years: 27.6%
Over 54 years: 9.2%

Status Composition (1981)
Full-time: 96.8%
Part-time: 3.2%

Industry Concentration: These occupations are concentrated in the public administration sector.

Trends: Below-average employment is forecast. The labour supply figure given above is underestimated, in our opinion, because much of the supply for these occupations comes from the secondary level. Employment opportunities for this group remain limited. Lower prices for computer hardware and software that can manipulate data more efficiently are contributing to the spread of this technology and will result in slower employment growth among statistical clerks and significant changes in the skills needed by these workers. The use of computers to store, manipulate and report data means that people in these occupations must know how to key in and process data on the computer.

Market Requirements: Completion of the secondary long vocational course, accounting clerk option, is required. Knowledge of how to operate data processing equipment will increasingly be in demand.

4143 ELECTRONIC DATA PROCESSING EQUIPMENT OPERATORS

Examples: Computer Operator, Digital Calculator Operator, Computer Peripheral Equipment Operator

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
13 852	14 953	1 101		2 509	3 610

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
1 930	1 006	1 402	4 338

* Competition Index: 1.20

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.14	1	1.17
2	1.44	2	2.01
3	9.42	3	22.95
4	2.35	4	2.85
5	1.34	5	2.39
6	76.05	6	59.76
7	7.27	7	7.37
8	0.72	8	1.09
9	0.28	9	0.42

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	76.4%	Under 25 years:	39.9%	Full-time:	95.1%
Males:	23.6%	Over 54 years:	2.5%	Part-time:	4.9%

Industry Concentration: Jobs in these occupations are found in the public administration, trade, business services and finance sectors.

Trends: Below-average employment growth is forecast, with labour supply exceeding demand. As the functions and capabilities of computers grow, so, too, do the functions of this occupational group. For example, the need for key punch operators, who were once in great demand, is declining as data processing equipment changes from data keying to on-line computerization.

Market Requirements: Completion of the secondary long vocational course in business techniques, data processing option, is required. Many positions are evening or night jobs.

PRODUCTION CLERKS

Examples: Material Checker, Production Control Clerk, Stock Chaser

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
3 613	4 028	415 469	884

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
242	141	68	451

* Competition Index: 0.51

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.42	3.03
2	1.19	2.02
3	7.90	14.48
4	4.98	6.73
5	2.59	1.35
6	77.48	68.35
7	2.16	1.68
8	0.96	0.67
9	1.32	1.68

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 31.3%
Males: 68.7%

Age Composition (1981)
Under 25 years: 26.1%
Over 54 years: 10.3%

Status Composition (1981)
Full-time: 97.0%
Part-time: 3.0%

Industry Concentration: Jobs in these occupations are found in a wide range of sectors.

Trends: Above-average employment growth is expected. Production planning is tending to become more and more complex as new machinery is introduced. Some industries are particularly affected by this development. Increasing importance is therefore being given to planning support, and this stimulates demand for production clerks, especially for those involved in production co-ordination and monitoring. These clerks will have to become familiar with production equipment and computer systems. However, the shift to on-line inventory control is, at the same time, tending to reduce the need for these clerks.

Market Requirements: Knowledge of computer systems is becoming an important asset.

4153 SHIPPING AND RECEIVING CLERKS

Examples: Delivery Clerk, Freight Clerk, Dispatcher Clerk, Receiving Clerk

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
21 171	22 929	1 758	3 119	4 877

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2 349	183	0	2 532

* Competition Index: 0.52

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.38	1	1.29
2	1.34	2	1.25
3	6.65	3	8.49
4	3.90	4	2.99
5	2.31	5	1.74
6	81.30	6	80.65
7	1.91	7	2.44
8	0.86	8	0.77
9	0.54	9	0.38

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	15.7%	Under 25 years:	39.7%	Full-time:	95.3%
Males:	84.3%	Over 54 years:	9.5%	Part-time:	4.7%

Industry Concentration: Jobs in these occupations are found in the trade, transport and communications services, and textile and clothing manufacturing sectors.

Trends: Employment is expected to grow at a rate below the average. The figure given above for supply from the educational system suggests that a labour shortage may be on the horizon in this area. However, we believe this figure underestimates the actual labour supply for occupations that do not require any specific training. This group does not seem to be particularly sensitive to technological changes. While many of the tasks performed by these workers will continue to be done manually, computerization will affect store and warehouse inventory control and records management.

Market Requirements: No specific qualifications are required for these occupations. All necessary training is given on the job.

STOCK CLERKS AND RELATED OCCUPATIONS

Examples: Purchasing Clerk, Stockroom Attendant, Stock Clerk, Tool Clerk, Warehouse Clerk

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
23 987	26 200	2 213	3 766	5 979

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 960	657	25	2 642

* Competition Index: 0.44

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.83	2.89
2	2.59	3.03
3	11.93	16.00
4	4.55	5.98
5	2.48	3.94
6	68.59	60.57
7	3.71	3.20
8	1.79	2.90
9	1.53	1.66

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 20.2%
Males: 79.3%

Age Composition (1981)
Under 25 years: 31.0%
Over 54 years: 10.7%

Status Composition (1981)
Full-time: 88.1%
Part-time: 11.9%

Industry Concentration: Jobs in these occupations are found in the air transport, trade, educational services and public administration sectors.

Trends: Employment is expected to grow at about the average rate. The projected labour supply from the educational system underestimates real supply, which is chiefly provided by interoccupational mobility. The outlook for this group will be affected by the automation of inventory control systems. The use of computer technology to maintain perpetual inventories, determine optimum stock levels automatically, and facilitate records management (products, prices, suppliers, etc.) is tending to depress demand for this occupational group. Despite the spread of data processing technology, the increased importance given to inventory management in recent years may lead to some growth in employment among stock clerks.

Market Requirements: No special qualifications are needed for these occupations. All required training is given on the job.

4171 RECEPTIONISTS AND INFORMATION CLERKS

Examples: Admitting Clerk, Hospital Information Clerk, Tourist Information Clerk, Receptionist

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
23 940	26 480	2 540		3 728	6 268

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
3 805	1 269	565	5 639

* Competition Index: 0.90

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.19	1	3.33
2	2.99	2	4.16
3	13.48	3	16.28
4	4.08	4	5.25
5	2.77	5	3.28
6	65.28	6	56.74
7	5.25	7	6.19
8	1.81	8	2.89
9	1.14	9	1.88

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	89.5%	Under 25 years:	35.4%	Full-time:	82.2%
Males:	10.5%	Over 54 years:	8.5%	Part-time:	17.8%

Industry Concentration: Jobs in these occupations are found in public administration and many service sectors.

Trends: Above-average employment growth is forecast. Labour supply is expected to exceed demand by a wide margin, since new graduates from the secondary level must be added to the supply estimate given above. Generally speaking, typing and word processing skills are an asset. More and more hotel reception desks are being equipped with microcomputer systems for registering arrivals and reservations and calculating transactions; this will likely affect receptionists' employment opportunities as well as their duties.

Market Requirements: Completion of the secondary long vocational course in business techniques, receptionist-telephone operator option, is required. Bilingualism is necessary. Experience in communications is an asset.

CLAIM ADJUSTERS

Examples: Complaint Clerk, Claim Adjuster

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
1 130	1 278	148	217	365

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
136	N/A	0	136

- Competition Index: 0.37

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.38	3.64
2	14.61	6.06
3	9.10	19.39
4	1.61	10.30
5	2.52	2.42
6	67.16	55.15
7	3.14	1.21
8	1.53	1.21
9	0.00	0.61

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 54.8%
Males: 45.2%

Age Composition (1981)
Under 25 years: 26.7%
Over 54 years: 9.5%

Status Composition (1981)
Full-time: 95.2%
Part-time: 4.8%

Industry Concentration: Jobs in these occupations are found in the insurance, public administration, transport and trade sectors.

Trends: Above-average growth is forecast. Deregulation and fierce competition are forcing many small insurance companies to merge with larger ones, thus bringing bleak employment prospects for complaint clerks and claim adjusters. Projections may overestimate job growth in this group.

Market Requirements: A community college diploma in business administration, insurance option, is usually necessary. Some employers require their claim adjusters to complete a three-to-five year course outside of working hours that is funded by the Insurance Institute of Canada; some require their claim examiners to complete a similar course run by the Insurance Institute of Quebec. Independent insurance adjusters in Quebec must have a licence issued by the Inspector General of Financial Institutions.

4197 GENERAL OFFICE CLERKS

Examples: General Office Clerk, Tax Clerk, Ward Clerk, Office Clerk, Order Clerk

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
37 773	40 526	2 753		7 680	10 433

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
697	1 462	1 296	3 455

* Competition Index: 0.33

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.25	1	3.84
2	1.95	2	4.13
3	15.14	3	17.23
4	4.54	4	7.53
5	2.41	5	2.12
6	64.55	6	56.02
7	6.75	7	4.84
8	1.45	8	2.30
9	0.95	9	1.98

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	74.2%	Under 25 years:	35.5%	Full-time:	92.0%
Males:	25.8%	Over 54 years:	9.1%	Part-time:	8.0%

Industry Concentration: Jobs in these occupations are found in the public administration, finance and insurance, educational services and trade sectors.

Trends: Below-average employment growth is forecast. Office automation has had a strong impact on this occupation. Computers now perform many back-office tasks as well as a variety of bookkeeping and inventory functions. Office automation will invariably redefine this group's tasks, which are of a broad nature, and therefore, growth could be slowed to below average.

Market Requirements: Completion of the secondary long vocational course in business techniques, office clerk option, is normally required. Ability to take dictation and to type (30 to 50 words per minute), both from steno notes and a dictaphone, is an asset. Knowledge of statistics, accounting and automated office equipment are sought.

SUPERVISORS: SALES OCCUPATIONS, COMMODITIES

Examples: Vegetable Buyer, Antique Dealer, Jeweller, Grocer, Exporter, Lumber Yard Supervisor, Oil Distributor

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
25 733	29 056	3 323	3 694	7 017

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2 199	N/A	282	2 481

* Competition Index: 0.35

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.18	3.37
2	3.09	4.61
3	11.27	12.22
4	6.13	5.62
5	3.17	2.55
6	62.49	65.14
7	6.36	3.64
8	3.48	1.80
9	0.83	1.05

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 25.7%
Males: 74.3%

Age Composition (1981)
Under 25 years: 9.4%
Over 54 years: 15.3%

Status Composition (1981)
Full-time: 95.3%
Part-time: 4.7%

Industry Concentration: These occupations are concentrated in the trade sector.

Trends: Above-average employment growth is forecast. The occupations in this group cover a wide spectrum of small businesses. Many of the people in these positions are entrepreneurs who carry out the duties of supervisors.

Market Requirements: No specific qualifications are needed. Knowledge in the area of the merchandise being sold is obviously an asset. Bilingualism is often required.

5131 TECHNICAL SALES AND RELATED ADVISORY OCCUPATIONS

Examples: Market Support Computer Consultant, Heavy Equipment Technical Salesperson, Residential Energy Adviser, Industrial Machinery Salesperson

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
2 536	2 701	165		413	578

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
408	71	69	548

* Competition Index: 0.95

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.48	1	1.77
2	0.79	2	4.52
3	7.28	3	17.49
4	4.25	4	7.86
5	3.11	5	3.34
6	79.15	6	55.40
7	4.42	7	4.13
8	0.38	8	4.72
9	0.14	9	0.79

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	9.6%	Under 25 years:	15.1%	Full-time:	97.1%
Males:	90.4%	Over 54 years:	9.2%	Part-time:	2.9%

Industry Concentration: Jobs in these occupations are found in the trade and manufacturing sectors.

Trends: Below-average employment growth is forecast. Demand for these professionals varies from one industry to the next, with some industries showing a net surplus and others facing labour shortages. Technological changes have had little effect on the duties of these workers. However, there is a growing trend to use portable computers to record orders, sales and correspondence.

Market Requirements: Selling specialized technical products or services requires training in engineering or science or at least training as a technologist or technician in the relevant technical or scientific field. Employers prefer candidates with experience in related fields, and ideally, experience in working through distribution channels they are familiar with.

COMMERCIAL TRAVELLERS

Examples: Pharmaceutical Representative, Office Furniture Salesperson, Commission Salesperson

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
27 641	29 025	1 384	1 226	2 610

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 356	953	1 128	3 437

- Competition Index: 1.32

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.81	2.50
2	1.70	1.83
3	11.02	19.35
4	3.44	5.43
5	2.19	4.09
6	77.02	61.54
7	1.57	2.93
8	0.55	1.89
9	0.20	0.43

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.4%
Males: 90.6%

Age Composition (1981)
Under 25 years: 9.1%
Over 54 years: 13.1%

Status Composition (1981)
Full-time: 97.6%
Part-time: 2.4%

Industry Concentration: These occupations are concentrated in the trade sector.

Trends: Employment growth well below the average rate is forecast. However, quite a number of openings can be expected because of the large size of the group and the high turnover ratio of salespersons.

Market Requirements: Secondary school graduation is the minimum requirement. A community college vocational diploma in a field related to the product being sold is necessary for jobs in technical areas. However, personal qualities are more important than training. Sales experience and knowledge of the product are assets. In some sales jobs, people work long and flexible hours or part-time. These jobs are not routine, structured ones. Earnings depend on performance and vary according to the product being sold.

5135 SALES CLERKS AND SALESPERSONS, COMMODITIES, NOT ELSEWHERE CLASSIFIED

Examples: Counter Clerk, Meat Counter Clerk, Grocery Store Clerk, Automotive Parts Clerk, Hardware Salesperson, Building Supplies Salesperson

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
140 217	160 903	20 686	28 481	49 167

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
15 084	2 986	2 569	20 639

* Competition Index: 0.42

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.78	1	2.87
2	3.53	2	5.78
3	14.47	3	14.87
4	6.93	4	7.26
5	3.71	5	3.06
6	59.85	6	59.43
7	4.17	7	4.17
8	2.08	8	1.71
9	1.48	9	0.84

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	50.8%	Under 25 years:	37.0%	Full-time:	80.3%
Males:	49.2%	Over 54 years:	10.8%	Part-time:	19.7%

Industry Concentration: These occupations are concentrated in the trade sector.

Trends: Employment is expected to grow at above the average rate, based on the anticipated growth in the trade sector where these occupations are concentrated. Many of these jobs are part-time. Knowledge of how to operate the new electronic cash registers is becoming an asset.

Market Requirements: No specific qualifications are needed. Training is often provided on the job.

SUPERVISORS: SALES OCCUPATIONS, SERVICES

Examples: Customs House Broker, Insurance Broker, Mortgage Broker, Grain Broker

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
3 799	4 345	546	746	1 292

Estimated Unemployed 1985	Community College Graduates 1.35-93	University Graduates 1985-93	Partial Supply 1985-1993
80	108	25	213

- Competition Index: 0.16

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.63	3.13
2	1.62	2.08
3	12.95	13.54
4	2.19	2.08
5	1.62	4.17
6	77.09	65.63
7	2.40	4.17
8	1.23	2.08
9	0.27	3.13

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 21.6%
Males: 78.4%

Age Composition (1981)
Under 25 years: 6.0%
Over 54 years: 15.9%

Status Composition (1981)
Full-time: 97.3%
Part-time: 2.7%

Industry Concentration: Jobs in these occupations are found in the finance, insurance and real estate sector and the business services sector.

Trends: Below-average employment growth is expected. A considerable number of these workers are self-employed. Marketing skills are essential, along with specialized knowledge of the relevant financial sector. Employment growth will depend on general economic activity. As incomes rise, short-term investment and long-term financial planning will increase. With deregulation allowing insurance companies to diversify into areas that were formerly the reserves of financial institutions, insurance brokers will see their duties focus more and more on financial planning. Computer technology will eventually allow brokers to hook up to all insurers.

Market Requirements: The qualifications required vary with the occupation. Ability to use computer systems applicable to the insurance industry, such as electronic archiving, is becoming an asset for professionals in this field.

5171 INSURANCE SALES OCCUPATIONS AND AGENTS

Examples: Insurance Appraiser, Claim Examiner, Life Insurance Salesperson

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
18 499	21 210	2 711	4 285	6 996

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
213	224	989	1 426

* Competition Index: 0.20

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.63	1	4.12
2	3.37	2	5.99
3	19.59	3	19.85
4	5.41	4	5.62
5	3.39	5	4.12
6	59.11	6	56.18
7	3.03	7	1.87
8	1.79	8	1.50
9	0.68	9	0.75

3. MAIN CHARACTERISTICS

Sex Composition (1981)	
Females:	25.4%
Males:	74.6%

Age Composition (1981)	
Under 25 years:	14.5%
Over 54 years:	12.8%

Status Composition (1981)	
Full-time:	97.5%
Part-time:	2.5%

Industry Concentration: These occupations are concentrated in the finance and insurance sector.

Trends: Above-average employment growth is expected. The labour supply forecast given above is underestimated, in our view, because much of the supply for this occupational group comes from the secondary level. Consumers' attitudes toward life insurance are changing. Fifteen years ago, they spent 3% of their incomes on insurance, while now they spend only 1.7%. This downward trend can be explained by the increased participation of women in the job market, the low number of children per family, and the establishment of public federal and provincial pension plans. With longer life expectancies, the best prospects for insurance salespeople should be in retirement insurance. Deregulation and stiff competition are forcing small insurance companies to merge with large ones, thus reducing employment opportunities for insurance salespeople and agents. On the other hand, the deregulation of the financial industry means that insurance companies can now sell trust services and financial products, and this should create new job openings for these workers. Product diversification and a reorientation of duties toward financial planning may brighten the outlook for this occupational group.

Market Requirements: Secondary school graduation is usually required. A community college diploma in business administration, insurance option, is an asset.

REAL ESTATE SALES OCCUPATIONS

Examples: Apartment Rental Agent, Real Estate Appraiser, Real Estate Agent

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
9 061	9 254	193	2 659	2 852

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
207	N/A	578	785

* Competition Index: 0.28

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.82	1	2.39
2	2.74	2	1.99
3	12.69	3	14.74
4	3.14	4	3.59
5	2.64	5	2.79
6	73.09	6	69.72
7	2.94	7	2.79
8	0.48	8	1.59
9	0.47	9	0.40

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 39.1%
Males: 60.9%

Age Composition (1981)
Under 25 years: 7.0%
Over 54 years: 16.2%

Status Composition (1981)
Full-time: 92.9%
Part-time: 7.1%

Industry Concentration: These occupations are concentrated in the finance, insurance and real estate sector.

Trends: Below-average employment growth is forecast. The prime home-buying age group is expected to expand and consequently may contribute to a further increase in demand for the services of real estate salespeople. With anticipated declines in activity in the housing construction sector, demand for real estate appraisers is not expected to climb rapidly over the medium term. Knowledge of architecture is an asset. Most jobs in real estate appraisal are expected to be temporary or contract positions. There is a certain amount of competition between graduates in property assessment and appraisal and graduates in architectural and civil engineering technology.

Market Requirements: For real estate appraisers, a university degree in business administration, with a specialization in real estate management (assessment), is required. Membership in the Quebec Association of Chartered Appraisers is mandatory only for those who wish to use the title. For real estate agents, the provincial Real Estate Associations now require new candidates to comlete the course organized by the Quebec Real Estate Association. A licence from the Real Estate Brokerage Division of the Quebec Department of Justice must be obtained.

5173 SALES AGENTS AND TRADERS, SECURITIES

Examples: Bond Dealer, Floor Trader, Securities Trader, Foreign Exchange Dealer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 618	1 949	331		307	638

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
21	N/A	272	293

° Competition Index: 0.46

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.29	1	0.00
2	2.08	2	4.35
3	9.19	3	4.35
4	2.08	4	4.35
5	2.77	5	4.35
6	81.57	6	78.26
7	1.21	7	4.35
8	0.29	8	0.00
9	0.52	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	23.1%	Under 25 years:	8.7%	Full-time:	92.1%
Males:	76.9%	Over 54 years:	19.9%	Part-time:	7.9%

Industry Concentration: These occupations are concentrated in the finance and insurance sector.

Trends: Above-average employment growth is forecast. As Canadian banks pursue global markets, there may be additional demand for the services of this occupational group. The renewed vitality of the Montreal stock market, the growing popularity of the Quebec government's stock savings plan, and the increasing involvement of deposit institutions in the securities business are three factors that should contribute to employment growth for these occupations.

Market Requirements: The qualifications required for these occupations vary from specialty to specialty. Mutual fund salespeople need a minimum of eleven years of schooling, and a postsecondary diploma or degree in business administration or economics is an asset. Completion of a two-to-three week Canadian mutual fund course is required for selling mutual funds; those who wish to sell other types of securities must complete a three-to-six month Canadian securities course. Registration in the provincial register kept by the Quebec Securities Commission is mandatory.

ADVERTISING SALES OCCUPATIONS

Examples: Advertising Salesperson, Radio and Television Advertising Salesperson, Publicity Agent

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 500	1 671	171	145	316

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
78	N/A	385	463

- Competition Index: 1.47

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.63	1.11
2	2.45	6.67
3	7.90	13.33
4	5.94	4.44
5	3.67	3.33
6	72.38	64.44
7	3.49	4.44
8	0.61	1.11
9	0.92	1.11

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 37.7%
Males: 62.3%

Age Composition (1981)
Under 25 years: 17.2%
Over 54 years: 7.8%

Status Composition (1981)
Full-time: 92.9%
Part-time: 7.1%

Industry Concentration: Jobs in these occupations are found in the business services, printing and publishing, and communications sectors.

Trends: Above-average employment growth is forecast. In an increasingly competitive economy, the need intensifies to promote and advertise company products. This may increase employment prospects for these occupations.

Market Requirements: Secondary school graduation and sales experience are generally required. University courses in marketing are an asset. Good communication skills are sought.

6112 POLICE OFFICERS AND DETECTIVES, GOVERNMENT

Examples: Constable, Traffic Officer, Highway Patrol Officer, Fingerprint Technician

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
15 429	16 033	604	2 126	2 730

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
489	1 343	0	1 832

* Competition Index: 0.67

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.93	1	5.24
2	2.35	2	11.69
3	11.76	3	14.66
4	4.55	4	9.08
5	3.35	5	4.54
6	64.05	6	47.99
7	5.43	7	2.27
8	2.45	8	0.87
9	3.13	9	3.66

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	2.3%	Under 25 years:	8.6%	Full-time:	99.2%
Males:	97.7%	Over 54 years:	4.8%	Part-time:	0.8%

Industry Concentration: These occupations are concentrated in the public administration sector.

Trends: Employment is expected to grow at a rate well below the average. Entry to public sector jobs is difficult and sometimes involves a long wait. The employment outlook for parapolice occupations remains favourable, particularly for part-time jobs. The increase in computer-related crimes and the police use of computers to identify fingerprints have implications for the job description of police officers.

Market Requirements: Secondary school graduation or preferably a community college diploma in police technology is required. Completion of a training course at the Nicolet Police Institute is compulsory for employment in a municipal police force or the Quebec Provincial Police. Only candidates referred by employers are accepted at the institute. Municipalities with a high population density require police job applicants to reside in the municipality. Bilingualism is a major asset.

GUARDS AND RELATED SECURITY OCCUPATIONS

Examples: Armoured Car Guard, Night Watchman, Prison Guard, School Crossing Guard

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
26 875	29 182	2 307	3 535	5 842

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 907	1 234	0	4 141

- Competition Index: 0.71

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.88	3.99
2	2.96	5.78
3	11.56	15.55
4	4.74	7.26
5	2.97	3.09
6	66.79	52.71
7	4.54	5.78
8	1.99	3.88
9	1.57	2.01

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 18.8%
Males: 81.2%

Age Composition (1981)
Under 25 years: 17.3%
Over 54 years: 28.8%

Status Composition (1981)
Full-time: 90.5%
Part-time: 9.5%

Industry Concentration: These occupations are concentraded in the security and investigation services, public administration and education sectors.

Trends: Below-average employment growth is expected. The large size of this group means numerous job openings in the future, particularly part-time. The guard's job is changing with the greater use of video and electronic monitoring systems.

Market Requirements: Although no specific educational qualifications are required for entry to this occupation, a high-school diploma is desirable. Guards must be licensed by the Quebec Provincial Police and be at least 18 years of age. Uniforms must be worn. Overtime may be required and employment may be on an on-call or variable basis (day, night, weekends). A college diploma in correctional technology is an asset for correctional officers.

6120 SUPERVISORS: FOOD AND BEVERAGE PREPARATION AND RELATED SERVICE OCCUPATIONS

Examples: Maître d'hôtel, Caterer Cooking Supervisor

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
11 100	13 767	2 767		2 008	4 775

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 056	90	192	1 338

* Competition Index: 0.28

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.04	1	2.24
2	2.21	2	3.78
3	9.13	3	16.37
4	5.24	4	4.86
5	3.00	5	2.32
6	69.30	6	64.63
7	5.64	7	3.86
8	2.21	8	1.31
9	1.24	9	0.62

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	28.3%	Under 25 years:	10.9%	Full-time:	93.2%
Males:	71.8%	Over 54 years:	12.3%	Part-time:	7.8%

Industry Concentration: These occupations are concentrated in the hospitality sector.

Trends: Above-average employment growth is expected. As population grows, disposable incomes increase and more leisure time becomes available, caterers may be in greater demand as consumers spend less time on food preparation. As the industry matures and adjusts to technological change, this group's responsibilities must go beyond culinary art to acquiring managerial skills. Advancement opportunities within this group are better for those waiters/waitresses who serve in larger restaurants.

Market Requirements: Managerial and supervisory skills are sought.

CHEFS AND COOKS

6121

Examples: First Cook, Grill Chef, Logging Camp Cook

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
46 435	55 853	9 418	7 010	16 428

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
9 108	305	329	9 742

* Competition Index: 0.59

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.53	1	8.41
2	4.49	2	7.24
3	14.42	3	19.37
4	6.68	4	6.19
5	4.00	5	3.44
6	56.64	6	44.16
7	4.13	7	5.11
8	2.35	8	3.38
9	1.76	9	2.69

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 47.3%
Males: 52.7%

Age Composition (1981)
Under 25 years: 37.4%
Over 54 years: 9.2%

Status Composition (1981)
Full-time: 84.0%
Part-time: 16.0%

Industry Concentration: These occupations are concentrated in the hospitality and health/welfare sectors.

Trends: Above-average employment growth is forecast. The projections given above underestimate real labour supply because most entrants to the occupation are secondary school graduates. The strongest demand is for experienced cooks to work in restaurants, cafeterias, hotels, motels and fast-food outlets. There is also some demand, though limited, for qualified chefs. Rising incomes, more leisure time and increasing participation of women in the labour force are creating a greater demand for restaurant services.

Market Requirements: Completion of the secondary long vocational course in professional cooking or graduation from the two-year professional cooking program offered by the Quebec Tourism and Hotel Institute is required.

6125 FOOD AND BEVERAGE SERVING OCCUPATIONS

Examples: Waiter/Waitress, Counter Attendant, Caterer Helper

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
51 378	63 833	12 455		12 571	21 946

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
8 519	1 364	678	10 561

* Competition Index: 0.48

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.08	1	6.23
2	3.74	2	6.12
3	13.27	3	18.07
4	6.90	4	5.82
5	3.46	5	2.98
6	61.28	6	50.43
7	4.31	7	5.36
8	1.93	8	2.21
9	2.03	9	2.79

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	82.0%	Under 25 years:	45.1%	Full-time:	73.9%
Males:	18.0%	Over 54 years:	3.5%	Part-time:	26.1%

Industry Concentration: These occupations are concentrated in the hospitality sector.

Trends: Employment is expected to grow faster than the average rate, based on the forecast growth in the hospitality sector. The above projections underestimate real labour supply because most new candidates are secondary school graduates.

Market Requirements: No particular schooling is required. However, completion of a secondary long vocational course in waiter/waitress training is an asset. Many jobs are part-time.

FUNERAL DIRECTORS, EMBALMERS AND RELATED OCCUPATIONS

Examples: Mortician, Embalmer, Crematorium Attendant, Thanatologist

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 094	1 184	90		302	392

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
52	N/A	N/A	52

- Competition Index: 0.13

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.91	1	3.28
2	6.36	2	1.64
3	19.77	3	34.43
4	6.92	4	4.92
5	2.54	5	4.92
6	50.14	6	39.39
7	4.10	7	1.64
8	1.27	8	6.56
9	0.99	9	3.28

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.9%
Males: 90.1%

Age Composition (1981)
Under 25 years: 8.3%
Over 54 years: 23.5%

Status Composition (1981)
Full-time: 89.3%
Part-time: 10.7%

Industry Concentration: These occupations are concentrated in the personal services sector, chiefly the funeral services industry.

Trends: Below-average employment growth is forecast. While the aging of the population will mean a steady demand for the services of this group, job openings will remain limited.

Market Requirements: A community college diploma is compulsory for those wishing to practise in Quebec. Only one institution offers the training course, and it accepts a maximum of 25 students per year. Working hours are very irregular. Membership in the Quebec Association of Thanatologists is mandatory. Bilingualism is an asset.

6143 BARBERS, HAIRDRESSERS AND RELATED OCCUPATIONS

Examples: Hair Stylist, Cosmetologist, Manicurist, Make-up Artist, Beauty Salon Proprietor

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
30 727	33 303	2 576	5 043	7 619

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2 172	139	32	2 343

* Competition Index: 0.31

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.29	1	4.33
2	4.86	2	6.26
3	14.55	3	16.39
4	7.96	4	6.15
5	5.48	5	3.17
6	53.47	6	55.62
7	5.84	7	3.98
8	1.12	8	2.16
9	1.42	9	1.93

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	74.2%	Under 25 years:	36.6%	Full-time:	82.8%
Males:	25.8%	Over 54 years:	5.8%	Part-time:	17.2%

Industry Concentration: Jobs in these occupations are found in the personal services sector, chiefly hairdressing salons.

Trends: Below-average employment growth is forecast. The above projections underestimate real labour supply because most new candidates are secondary school graduates.

Market Requirements: Completion of a secondary long vocational course in men's or women's hairdressing or beauty care or a training course in a recognized private school or in a beauty salon under the supervision of a qualified specialist is required. Electrolysis training is necessary for beauticians.

JANITORS, CHARWORKERS AND CLEANERS 6191

Examples: Janitor, Chimney Sweep, Floor Cleaner, Washroom Attendant, Window Cleaner, Charworker

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
59 419	65 346	5 927	15 780	21 707

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
6 896	666	284	7 846

* Competition Index: 0.36

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.23	1	5.17
2	4.63	2	7.11
3	14.75	3	16.47
4	5.81	4	6.12
5	3.26	5	3.25
6	57.47	6	48.65
7	6.06	7	7.76
8	1.94	8	2.56
9	1.84	9	2.91

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	31.6%	Under 25 years:	25.2%	Full-time:	85.8%
Males:	68.4%	Over 54 years:	20.8%	Part-time:	14.2%

Industry Concentration: Jobs in these occupations are found in the miscellaneous services, health/welfare, education services, and finance and real estate sectors.

Trends: Employment is expected to grow at about the average rate. In our view, the above projections underestimate real supply because community college and university graduates do not constitute a significant part of the labour pool available for these jobs.

Market Requirements: No specific qualifications are needed. Training is given on the job.

6198 OCCUPATIONS IN LABOURING AND OTHER ELEMENTAL WORK: OTHER SERVICES

Examples: Auto Washer, Checkroom Attendant, Dishwasher, Door Tender, Laundry Labourer, Shoe Shiner

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
11 318	13 523	2 205	1 787	3 992

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2 013	146	121	2 280

° Competition Index: 0.57

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.97	1	3.29
2	2.40	2	2.75
3	16.65	3	16.19
4	4.75	4	5.87
5	3.02	5	2.75
6	63.26	6	62.03
7	4.27	7	5.37
8	1.46	8	0.79
9	1.23	9	0.96

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	21.1%	Under 25 years:	62.6%	Full-time:	76.2%
Males:	78.9%	Over 54 years:	7.8%	Part-time:	23.8%

Industry Concentration: Jobs in these occupations are found in the hospitality, health/welfare and retail trade sectors.

Trends: Above-average employment growth is expected. In our view, the above projections underestimate real labour supply because community college and university graduates do not constitute a significant part of the labour pool available for these jobs.

Market Requirements: No specific qualifications are necessary.

LIVESTOCK FARMERS, PLUS 7115 -- CROP FARMERS, AND 7119 -- FARMERS, NOT ELSEWHERE CLASSIFIED

7113
7115
7119

Examples: Apiarist, Fruit Farmer, Tomato Farmer, Poultry Farmer, Maple Syrup Maker

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
34 503	33 691	-812	14 701	13 889

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
N/A	100	-	100

* Competition Index: N/A

2. DISTRIBUTION BY REGION OF QUEBEC (for 7133 only)

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	9.65	1	9.71
2	5.23	2	9.71
3	21.89	3	19.42
4	21.56	4	14.56
5	9.48	5	6.80
6	26.41	6	31.07
7	2.84	7	1.94
8	2.90	8	3.88
9	0.04	9	2.91

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: N/A
Males: N/A

Répartition selon l'âge (1981)
Moins de 25 ans: N/A
Plus de 54 ans: N/A

Répartition selon le statut (1981)
Temps Plein: N/A
Temps partiel: N/A

Industry Concentration: These occupations are concentrated in the agriculture sector.

Trends: Employers give as much importance to new graduates' practical skills as to their theoretical knowledge. Some young farmers take over the family farm at an early age or form associations with other family members. There is a shortage of qualified candidates. Farms are becoming increasingly specialized and require skilled workers who are knowledgeable about farming and the environment. Prospects are good in equestrian technology, as horse-riding is becoming more and more popular in Quebec. This trend should encourage firms and co-operatives to focus more on horse breeding. In addition, there is a demand for workers with specialized knowledge of organically grown products.

Market Requirements: Farmers must have a good knowledge of animal science and business administration. Farming experience is an asset. Completion of the secondary long vocational course in agricultural technology, animal production, option, is generally required. A community college diploma in agriculture or farming techniques is an asset. For farmers who raise small animals, a community college diploma in animal health may be useful.

7195 NURSERY AND RELATED WORKERS

Examples: Park Worker, Landscape Gardner, Nursery Worker, Peat Moss Layer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
11 944	12 533	589		684	1 273

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
2 032	714	124	2 870

* Competition Index: 2.25

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.03	1	6.91
2	4.12	2	2.57
3	13.45	3	12.80
4	5.98	4	6.87
5	5.23	5	4.84
6	54.61	6	56.36
7	6.03	7	6.29
8	2.25	8	3.35
9	1.30	9	0.21

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	7.5%	Under 25 years:	42.6%	Full-time:	100.0%
Males:	92.5%	Over 54 years:	12.1%	Part-time:	-

Industry Concentration: Jobs in these occupations are found in the construction, public administration and agriculture sectors.

Trends: Below-average employment growth is forecast, with labour supply exceeding demand. The outlook for this occupational group may be brighter than the projections indicate. Consumer interest in indoor greenery and landscaping should persist, while the Quebec government's new forest development policy, which stresses reforestation, should create considerable demand for nursery workers. Under the policy, harvesting would be limited to actual forest capacity, meaning that for every tree cut down another would have to be planted. The goal is to reach the level of 300 million seedlings by 1988.

Market Requirements: While no specific qualifications are necessary, employers often prefer candidates who have completed the ornamental horticulture option of the secondary long vocational course in agricultural technology. For some jobs, a community college diploma in ornamental horticulture may be an asset.

CAPTAINS AND OTHER OFFICERS, FISHING VESSELS

7311

Examples: Trawler Captain, Boastwain, Mate

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
101	102	1		10	11

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
24	N/A	-	24

* Competition Index: 2.18

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	78.57	1	84.54
2	8.33	2	1.03
3	0.00	3	3.09
4	0.00	4	0.00
5	0.00	5	1.03
6	0.00	6	1.03
7	0.00	7	0.00
8	0.00	8	0.00
9	13.10	9	9.28

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	9.1%	Under 25 years:	18.1%	Full-time:	N/A
Males:	90.9%	Over 54 years:	9.1%	Part-time:	N/A

Industry Concentration: These occupations are concentrated in the fishing and fish products sectors.

Trends: Employment is expected to grow at less than the average rate, based on the outlook in the fishing and fish products sectors. In our opinion, the employment level given above underestimates the real number of jobs in these occupations, since Quebec reportedly had in excess of 3,000 fishing vessels in 1982. Opportunities for this occupational group are largely seasonal. Most captains of fishing vessels are relatively small scale operators and may employ as many as seven helpers. Large sea-going trawlers account for fewer than one per cent of all fishing vessels, but a trend toward more factory freezer trawlers used in offshore activity may limit the opportunities for vessel captains. These developments may also change the structure of the industry. Fishing operations may become more integrated as fish processing is carried out offshore. Fishing activity and therefore employment opportunities are dependent upon a number of other factors: the supply of fish is regulated by the federal government and quotas are imposed; the price of fish may act as an incentive, but the value of the Canadian dollar vis-à-vis European and U.S. currencies has had some influence, since 70 per cent of sales are derived from exports.

Market Requirements: Completion of the secondary long vocational course in commercial fishing, or a community college diploma in fishing techniques, harvesting and management option, is usually required. Certification is compulsory. Fishing vessel captains and mates are certified by vessel type.

7516 LOG INSPECTING, GRADING, SCALING AND RELATED OCCUPATIONS

Examples: Log Grader, Wood Scaler, Timber Cruiser, Pulpwood Scaler, Log Culler

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
595	710	115		39	154

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
413	50	0	463

* Competition Index: 3.01

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	15.55	1	18.92
2	23.62	2	22.01
3	16.44	3	19.50
4	3.44	4	11.58
5	0.75	5	1.74
6	9.12	6	4.25
7	11.36	7	11.39
8	12.56	8	7.14
9	7.17	9	3.47

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	2.1%	Under 25 years:	28.5%	Full-time:	97.3%
Males:	97.9%	Over 54 years:	9.7%	Part-time:	2.7%

Industry Concentration: These occupations are concentrated in the forestry, wood and pulp and paper sectors.

Trends: Employment is expected to grow at faster than the average rate, based on the outlook in the forestry, wood and pulp and paper sectors where these occupations are concentrated. The levying of a 15% surtax on lumber exports, which will have an impact on the logging industry in the short term, and the implementation of a new reforestation policy, which will raise the overall costs of harvesting timber, may dampen employment growth in this occupational group. Some occupations in this group are becoming obsolete as scaling is being computerized, eliminating the job of "scaler's helper."

Market Requirements: A community college diploma in forest technology, forest management option, is required. For log scalers, completion of the secondary long vocational course in forestry, grading and scaling option, is necessary, as well as one or more years' apprenticeship under the supervision of a licensed log scaler. Both log scalers and log cullers must hold a licence issued by the Quebec Department of Energy and Resources.

ROTARY WELL DRILLING AND RELATED OCCUPATIONS

Examples: Well Driller, Derrick Worker, Well Acidizer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
41	50	9	3	12

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
49	N/A	N/A	49

* Competition Index: 4.08

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	10.53	1	10.17
2	13.16	2	3.39
3	39.47	3	13.56
4	0.00	4	1.69
5	0.00	5	1.69
6	10.53	6	47.46
7	13.16	7	1.69
8	0.00	8	18.64
9	13.16	9	1.69

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.0%
Males: 100.0%

Age Composition (1981)
Under 25 years: 16.7%
Over 54 years: 16.7%

Status Composition (1981)
Full-time: N/A
Part-time: N/A

Industry Concentration: These occupations are concentrated in the mining sector, chiefly metal mines and the oil and gas industry.

Trends: Above-average employment growth is forecast, but this applies to only a small number of occupations. In Quebec, employment in this occupational group is linked to metal mining activity; however, with the exception of gold, the industry is struggling with worldwide depressed markets for many minerals. High technology processes being undertaken in both underground and above ground operations are reducing operating costs and improving productivity. In our view, the employment projections given above overestimate real job growth, which will most likely be somewhat weaker.

Market Requirements: Candidates must be at least 18 years of age and have ten years of schooling. Oil and gas development and transportation labourers are trained on the job. For many other occupations, such as oil well cementers, rotary rig operators, well acidizers, drillers, oil and gas hoist operators and derrick workers, completion of a training course at the Alberta Petroleum Industry Training Center is recommended. Derrick workers must have previously completed the secondary long vocational course in mechanics.

7713 ROCK AND SOIL DRILLING OCCUPATIONS

Examples: Core Drill Operator, Air Drill Operator, Drifter

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 107	2 591	484	347	831

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
673	N/A	N/A	673

* Competition Index: 0.81

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	6.43	1	9.41
2	12.45	2	9.41
3	7.93	3	10.62
4	3.41	4	4.56
5	3.01	5	2.77
6	14.81	6	11.58
7	4.17	7	3.74
8	46.43	8	43.31
9	2.36	9	4.58

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	0.6%	Under 25 years:	22.6%	Full-time:	100.0%
Males:	99.4%	Over 54 years:	6.9%	Part-time:	-

Industry Concentration: Jobs in these occupations are found in the mining sector, chiefly metal mines, mining services and construction.

Trends: Above-average employment growth is forecast. Demand for workers in these occupations is closely linked to demand in the mining sector. At present, this sector is struggling with worldwide depressed demand for many minerals, including iron, copper and asbestos; the sole exception is the gold market, where international prices should buoy production at current levels. High technology processes are being undertaken in both underground and above ground operations. An automatic drill machine can displace three workers. Vertical crater retreat mining and continuous mining systems are other innovations improving productivity and reducing costs. Mine modernization will continue to be an ongoing process. In our opinion, the employment projections given above overestimate real job growth, which will most likely be somewhat weaker.

Market Requirements: Qualifications are not very important for these jobs. Rock and soil drillers are trained on the job. Knowledge of mechanics is an asset for drillers working in underground mines. Many mining companies recommend that a driller work as a regular miner for at least a year so as to become familiar with mining techniques.

BLASTING OCCUPATIONS

Examples: Blaster, Dynamiter, Pit Scaler

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
438	497	59	45	104

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
146	N/A	N/A	146

- Competition Index: 1.4

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.89	1	11.67
2	3.71	2	7.78
3	19.72	3	25.00
4	3.94	4	7.78
5	9.05	5	8.89
6	30.63	6	24.44
7	6.73	7	5.00
8	15.08	8	4.44
9	3.25	9	5.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.0%
Males: 100.0%

Age Composition (1981)
Under 25 years: 13.1%
Over 54 years: 17.8%

Status Composition (1981)
Full-time: 97.1%
Part-time: 2.9%

Industry Concentration: Jobs in these occupations are found in the construction, metal and non-metal mining, quarrying, and mining services sectors.

Trends: Above-average employment growth is forecast, but labour supply should exceed demand. Advanced technology in mining or semi-automatic mining has increased the efficiency and safety of coal extraction, but has reduced the number of job openings.

Market Requirements: Formal education is not very important for these jobs. Mining experience, to become familiar with mining techniques, is an asset for blasters. Some companies also have their blasters complete courses on blasting theory. For oil well perforators, completion of Grade 10 or the equivalent, preferably with emphasis on mechanics, is required. Completion of a training course at the Alberta Petroleum Training Center is recommended.

8137 MOULDING, COREMAKING AND METAL CASTING OCCUPATIONS

Examples: Die Casting Machine Operator, Pattern Moulder, Core Setter, Lost-Wax Caster

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
2 175	2 478	303		239	542

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
159	N/A	N/A	159

* Competition Index: 0.29

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.90	1	6.51
2	11.47	2	5.05
3	11.15	3	10.61
4	10.09	4	14.14
5	3.41	5	4.55
6	50.05	6	69.14
7	1.15	7	0.51
8	4.88	8	0.00
9	4.88	9	0.51

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.8%	Under 25 years:	20.1%	Full-time:	100.0%
Males:	96.2%	Over 54 years:	12.4%	Part-time:	-

Industry Concentration: Jobs in these occupations are found in the primary metal processing sector, chiefly iron and steel, smelting and casting, as well as the metal fabricating and miscellaneous machinery and equipment sectors.

Trends: Above-average employment growth is expected. However, in our view this forecast is too optimistic for a number of reasons. The advent of plasma technology and automatic machine moulding in metal processing has served to reduce the labour content of metal casting. As for metal fabricating, the wholescale switch from castings to sheet metal is tending to reduce demand for workers specialized in this area. This change has meant that many small foundries integrated into sector firms have had to close, and the number of coremaking jobs has declined as a result. Technical advances in steel casting processes and the introduction of computer-controlled electronic furnaces have also cut back job opportunities in these occupations. In the iron and steel industry, moulding and coremaking jobs are concentrated in the hardware, tool and cutlery subsectors, which have undergone more extensive automation on account of generally longer production runs. In the machinery sector, greater use of mechanical casting techniques should make foundry work more efficient. All this, combined with the substitution of plastics and other materials for steel, dims the prospects for this occupational group.

Market Requirements: There are no specific educational requirements for entry to these occupations. However, completion of the secondary long vocational course in moulding and metal casting is an asset.

TOOL AND DIE MAKING OCCUPATIONS

Examples: Die Maker, Tool and Die Repairer, Bench Jig Maker, Die Sinker

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
1 239	1 466	227	149	376

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
143	N/A	N/A	143

- Competition Index: 0.38

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.18	1.13
2	0.67	0.00
3	4.15	3.39
4	2.89	15.82
5	1.33	4.52
6	89.05	72.88
7	0.74	0.56
8	0.00	0.56
9	0.00	1.13

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 3.2%
Males: 96.8%

Age Composition (1981)
Under 25 years: 13.6%
Over 54 years: 21.8%

Status Composition (1981)
Full-time: 99.5%
Part-time: 0.5%

Industry Concentration: Jobs in these occupations are found in the metal fabricating, transport equipment and electrical products sectors.

Trends: Above-average employment growth is forecast. The labour supply projection given above underestimates real supply, which is essentially composed of secondary school graduates. Tool and die makers are highly skilled workers who must possess a range of skills. They must desing, manufacture, fit and assemble dies to produce varying quantities of duplicate parts. Automation could reduce the amount of work involved in many tasks, including layout, and transform other operations, such as internal threading, while using computers to control equipment may replace some manual work methods. Some tool-making tasks will tend to become obsolete as numerically controlled machine tools (NCMTs) are introduced which can automatically convert mechanical drawings into specifications. Still, a number of industries in Quebec are currently encountering difficulties recruiting tool and die makers, particularly workers skilled in applied reading of mechanical drawings and template development. Knowledge and skills in computer-aided design and manufacturing (CAD/CAM) and in programming and operating numerically controlled machine tools are also in demand.

8311

market Requirements: Entry to this occupation requires completion of the secondary long vocational course in mechanics, machinist option, plus one year of complementary courses in the tool and die making option followed by six to twelve months' on-the-job training. Since tool and die making is becoming a high-tech process, workers in this occupation must learn how to operate the new computer-controlled equipment, in addition to their training and experience in the old methods and technology. In short, a good grounding in conventional methods together with experience and keen interest in new technology is required.

MACHINISTS AND MACHINE TOOL SETTING-UP OCCUPATIONS

Examples: Machine Adjuster, Aircarft Machinist, Lathe Hand, Numerical Control Machine Operator, Machine Tool Setter

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
12 197	13 839	1 642	1 425	3 067

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 251	130	0	2 381

- Competition Index: 0.78

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.99	3.51
2	2.67	5.47
3	7.69	12.27
4	6.05	12.98
5	4.21	6.36
6	74.80	54.22
7	1.31	1.33
8	1.16	2.04
9	1.12	1.82

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.8%
Males: 98.2%

Age Composition (1981)
Under 25 years: 28.8%
Over 54 years: 10.7%

Status Composition (1981)
Full-time: 98.4%
Part-time: 1.6%

Industry Concentration: These occupations are concentrated in the railway transport, transportation equipment, and metal fabricating and machinery (including computers) sectors.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Trends in these occupations are related to the introduction of computer-controlled production processes, mechanical and electronic automation, and robotization. These factors could increase demand for machinists familiar with computerized and/or programmed equipment and its maintenance. With the numerically controlled machine tool, there is a trend toward combining jobs to the advantage of machinists. Tasks related to NCMT control and operation now tend to be done by more qualified staff able to make necessary adjustments during production. In addition, the NCMT has changed the work itself, which has become automated in that the tools are adjusted by the NCMT. There are fewer specialized production jobs, and more control and monitoring jobs often requiring greater versatility. Skills in blueprint reading, programming, numerical control and computerization are in demand.

8313

Market Requirements: Entry to these occupations requires a secondary long vocational course in mechanics, machinist, NCMT operator or precision instrument mechanic option, or complementary tool-maker option, depending on specialization. There is no specific educational requirement for metal model maker machinists, but a secondary long vocational course in HVAC, metal moulder-caster option, is an asset. Generally, extensive training and experience in using "older" methods and equipment as well as automated and computer-controlled equipment increase job chances. Knowledge of the metric system is essential.

INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS: METAL MACHINING

Examples: Differential Tester, Tool Inspector, Gear Inspector

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
232	247	15	30	45

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
37	N/A	N/A	37

* Competition Index: 0.82

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.00	1	0.00
2	0.00	2	1.96
3	2.06	3	1.96
4	2.41	4	0.00
5	9.97	5	5.88
6	79.38	6	90.20
7	0.00	7	0.00
8	3.44	8	0.00
9	2.75	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.7%
Males: 90.3%

Age Composition (1981)
Under 25 years: 17.7%
Over 54 years: 21.0%

Status Composition (1981)
Full-time: 96.8%
Part-time: 3.2%

Industry Concentration: These occupations are concentrated in the transportation equipment, and metal fabricating and machinery (including computers) sectors.

Trends: Employment in these occupations is expected to grow at a below-average rate. The growing reliance in manufacturing on computer-aided quality control, where defects are effectively spotted by machines, may limit job opportunities in this field and produce below-average growth.

Market Requirements: Experience in related fields is an asset.

8319 METAL MACHINING OCCUPATIONS, N.E.C.

Examples: Cutter, Keysmith, Sawsmith, Babbitter

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
4 591	5 500	909		888	1 797

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
179	43	0	222

* Competition Index: 0.12

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.36	1	8.37
2	4.17	2	6.61
3	7.44	3	21.15
4	6.18	4	3.52
5	3.27	5	8.37
6	72.14	6	40.09
7	0.97	7	2.64
8	1.67	8	7.93
9	1.80	9	1.32

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.6%	Under 25 years:	28.9%	Full-time:	98.3%
Males:	96.4%	Over 54 years:	10.9%	Part-time:	1.7%

Industry Concentration: These occupations are concentrated in the metal fabricating and primary metal industries, especially steel and smelting.

Trends: Employment in these occupations is expected to grow at an above-average rate. In the metal fabricating industries, trends in machining occupations are related to the introduction of computer-controlled production processes, mechanical and electronic automation, and robotization. Technological improvements affecting operational monitoring and feeding have led to an increase in the need for machinists. Improvements in production equipment tend to reduce the need for machine tool operators to the advantage of less qualified machinists.

Market Requirements: These is no specific educational requirement for entry to these occupations.

SHEET METAL WORKERS

Examples: Sheet Metal Worker, Tinker, Tinsmith, Metal Worker

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
4 619	4 169	550	523	1 073

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 058	43	0	1 101

- Competition Index: 1.03

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.53	2.79
2	4.31	7.75
3	12.04	16.28
4	6.56	8.68
5	3.35	4.42
6	65.92	51.32
7	3.82	5.81
8	1.61	1.55
9	0.85	1.40

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 3.2%
Males: 96.8%

Age Composition (1981)
Under 25 years: 23.2%
Over 54 years: 8.7%

Status Composition (1981)
Full-time: 97.9%
Part-time: 2.1%

Industry Concentration: These occupations are concentrated in the construction, metal fabricating, machinery and other equipment, and aircraft manufacturing sectors.

Trends: Employment is expected to grow at slightly above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, and oversupply is expected in these occupations. This group has greatly benefited from the use of sheet metal. These occupations should not be affected by major technological or technical changes between now and 1993. Skill in blueprint reading is sought by employers.

Market Requirements: There is no specific requirement for entering this occupational unit group. However, a secondary long vocational course in HVAC, sheet metal or other option, depending on specialty is an asset. In Quebec certification is compulsory.

8335 WELDING AND FLAME CUTTING OCCUPATIONS

Examples: Gas Brazer, Acetylene Cutter, Solderer-Dipper, Cutting Torch Operator, Laser Welding Technician

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
20 646	24 216	3 570		3 890	7 460

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
5 633	43	0	5 676

* Competition Index: 0.76

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.76	1	7.69
2	7.33	2	10.25
3	11.56	3	18.94
4	8.07	4	10.34
5	4.47	5	4.54
6	56.89	6	38.87
7	1.82	7	2.42
8	2.99	8	4.38
9	2.11	9	2.56

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	2.9%	Under 25 years:	26.5%	Full-time:	98.5%
Males:	97.1%	Over 54 years:	7.3%	Part-time:	1.5%

Industry Concentration: These occupations are concentrated in the metal fabricating, transportation equipment, construction and miscellaneous services sectors.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, supply is expected to exceed demand. A small yet growing use of robots to carry out both spot and arc welding will limit somewhat the number of job openings in this still large occupational group. Technical progress in the fields of welding and flame cutting varies from sector to sector. In shipbuilding, flame cutting operations have been automated. With respect to welder-fitters and pressure vessel welders, skill in blueprint reading for welding and computer-aided manufacturing is in demand.

Market Requirements: Entry to this occupational unit group requires a secondary long vocational course in HVAC, welder option. There are many kinds of welding, with differing skill requirements depending on the welding technique, type of metal and thickness of material. These range from spot welding requiring very little skill to plasma welding demanding considerable training. These training requirements vary from ferrous to non-ferrous metals. Employers may require a number of construction-related skills as well as pipe-fitting skills.

INSPECTINGS, TESTING, GRADING AND SAMPLING OCCUPATIONS: METAL SHAPING AND FORMING, EXCEPT MACHINING

Examples: Chain Inspector, Spring Tester, Can Inspector

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
465	525	60	46	106

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
51	N/A	N/A	51

- Competition Index: 0.48

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.12	1.69
2	2.06	3.39
3	4.55	5.08
4	8.16	5.08
5	3.61	3.39
6	74.95	74.58
7	0.95	1.69
8	0.00	0.00
9	0.00	5.08

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.0%
Males: 91.0%

Age Composition (1981)
Under 25 years: 22.5%
Over 54 years: 16.2%

Status Composition (1981)
Full-time: 97.1%
Part-time: 2.9%

Industry Concentration: These occupations are concentrated in the metal fabricating, primary metal, transportation equipment, and machinery and other equipment sectors.

Trends: Employment is expected to grow at an above-average rate. The trend toward integrating quality control and production could check growth in these occupations.

Market Requirements: This group includes workers responsible for inspection, testing, regular analysis and sampling in the metal processing industry. Required skills and knowledge, and work complexity depend on the type of inspection to be carried out. However, knowledge of manufacturing processes and direct experience as a worker in manufacturing or processing, or as an assistant, is necessary.

8337 BOILERMAKERS, PLATERS AND STRUCTURAL METAL WORKERS

Examples: Boilermaker, Boiler Repairer Boilerhouse Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
800	955	155	147	302

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
348	N/A	N/A	348

* Competition Index: 1.15

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.99	1	6.38
2	5.21	2	6.86
3	6.83	3	5.67
4	6.71	4	9.46
5	4.86	5	1.18
6	71.64	6	69.27
7	0.00	7	0.71
8	1.16	8	0.24
9	0.00	9	0.24

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.0%	Under 25 years:	12.7%	Full-time:	97.6%
Males:	99.0%	Over 54 years:	9.5%	Part-time:	2.4%

Industry Concentration: These occupations are concentrated in the construction, transportation equipment, metal fabricating and metal processing sectors.

Trends: Employment is expected to grow at an above-average rate. Supply should meet demand. Since boilermakers also must repair and renovate existing equipment, the trade is less prone to large cyclical swings in employment than would otherwise be the case.

Market Requirements: Access to this occupation requires only basic schooling but a secondary long vocational course in HVAC, sheet metal option, is an asset. For metal-forming machine-set-up operators, a machinist or production machine operator option is desirable.

MOTOR VEHICLE FABRICATING AND ASSEMBLING OCCUPATIONS, N.E.C.

Examples: Body Assembler, Engine Installer, Door Adjuster, Axle Assembler, Battery Repairer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
2 874	3 570	696	406	1 102

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
456	N/A	N/A	456

- Competition Index: 0.41

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.22	0.82
2	0.13	0.41
3	3.70	27.35
4	0.51	1.63
5	0.46	2.86
6	94.82	66.33
7	0.05	0.41
8	0.11	0.20
9	0.00	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 4.9%
Males: 95.1%

Age Composition (1981)
Under 25 years: 17.0%
Over 54 years: 4.4%

Status Composition (1981)
Full-time: 97.4%
Part-time: 2.6%

Industry Concentration: These occupations are concentrated in the motor vehicle and trailer industries.

Trends: Employment growth is expected to be higher than average. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. A possible increase in demand for auto parts may benefit the auto industry and hence the workers employed in it. However, greater use of automatic processes and robots in the automotive industry may limit job opportunities. Skill integration will be the result of new production techniques as workers become part of a team.

Market Requirements: Not available.

ELECTRICAL AND RELATED EQUIPMENT INSTALLING AND REPAIRING OCCUPATIONS, N.E.C. 8533

Examples: Aircraft Electrician, Automobile Electrician, Neon Sign Installer, Household Appliance Installer, Battery Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
10 799	11 799	1 000	1 551	2 551

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 401	522	N/A	1 923

* Competition Index: 0.75

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.53	1	6.62
2	4.29	2	6.56
3	11.11	3	13.41
4	6.67	4	10.07
5	2.89	5	5.12
6	64.25	6	49.40
7	3.75	7	3.11
8	1.90	8	2.88
9	2.63	9	2.82

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 2.0%
Males: 98.0%

Age Composition (1981)
Under 25 years: 20.2%
Over 54 years: 8.6%

Status Composition (1981)
Full-time: 98.4%
Part-time: 1.6%

Industry Concentration: These occupations are concentrated in the trade and construction sectors.

Trends: Employment in these occupations is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. New technologies have led to a greater need for maintenance and repair of computerized or progammed equipment, and this should benefit electrical appliance repairers. In addition to the traditional tasks performed by workers in these occupations, there are tasks related to modern electronic control networks, which include semiconductor controls, programmable control devices and automated networks. Knowledge and skills in these new fields are in great demand. Training in using such programmable robots and numerically controlled systems is an asset. Demand for refrigeration mechanics is expected to affect this occupation. For household appliance repairers, the range of products to be repaired has widened, but the use of electronic parts makes it less likely that appliances will need repairs as often. There is a marked trend, however, toward having expensive household appliances repaired rather than replaced. Continuous cleaning ovens are no longer on the market, but repairers of major appliances may be called upon to repair those that are already installed. Microwave oven repairs are carried out by electronic technicians.

8533

Market Requirements: Entry to the occupation of refrigeration mechanic does not have any basic requirement, but a secondary long vocational course in HVAC, refrigeration worker option, is an asset. Depending on the job, a secondary long vocational course in electrotechnology, household appliance mechanic, installer and repairer of telecommunications equipment, or household electronic applicance servicer, is required. A community college diploma in electronics with a concentration in electronics or visual equipment could be an asset.

ELECTRONIC AND RELATED EQUIPMENT INSTALLING AND REPAIRING OCCUPATIONS, N.E.C.

8535

Examples: Radar Technician, Television Studio Equipment Repairer, Communications technician, Electronics Technician, Speaker Installer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
4 990	5 450	460 733	1 193

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
262	1 214	0	1 476

- Competition Index: 1.24

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.00	2.50
2	3.03	4.69
3	10.21	12.81
4	3.54	7.19
5	1.83	3.75
6	69.68	61.25
7	4.95	3.44
8	1.92	2.50
9	1.84	1.88

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 4.6%
Males: 95.4%

Age Composition (1981)
Under 25 years: 23.2%
Over 54 years: 6.1%

Status Composition (1981)
Full-time: N/A
Part-time: N/A

Industry Concentration: These occupations are concentrated in the communications, trade and telecommunications equipment sectors.

Trends: Employment is expected to grow at a rate below-verage rate. Supply is expected to exceed demand. Telecommunications and data transmission are perhaps the fields that have been affected most by rapid changes in equipment and technology. Because of the high cost of telecommunications systems, equipment age varies greatly, and maintenance on a number of generations of equipment must be carried out. With regard to video game equipment, transmitting equipment, audio equipment, television receivers and monitors and speakers, the constant improvement in the reliability and performance of semiconductor equipment will reduce the need for maintenance and repair. However, this trend will be partially offset by the increased technical complexity of the equipment and the greater number of options. Higher sales and lower costs for electronic music equipment, variety, the growing number and technical complexity of high-fidelity stereo systems, car radios and VCRs should stimulate demand in these occupations. There is a trend toward specializing in a limited number of types and makes.

8535

Market Requirements: Entry to these occupations usually requires a secondary long vocational course in electrotechnology, installer and repairer of telecommunications equipment option. A community college diploma in electrotechnology (three-year career program) with a concentration in electronics or audio-visual equipment is an asset. For some occupations it is a basic requirement. The development of existing equipment and the introduction of new equipment require people working in these occupations to continually upgrade their knowledge.

INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS: FABRICATING, ASSEMBLING, INSTALLING 8536

Examples: Motor Tester, Electronic System Tester, Electronic Components Inspector

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 080	2 346	266	280	546

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
141	N/A	121	262

° Competition Index: 0.48

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.45	1	0.00
2	0.49	2	0.00
3	5.20	3	1.94
4	9.37	4	5.16
5	1.12	5	0.65
6	78.23	6	89.68
7	4.93	7	2.58
8	0.19	8	0.00
9	0.00	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	31.9%	Under 25 years:	23.4%	Full-time:	98.0%
Males:	68.1%	Over 54 years:	8.8%	Part-time:	2.0%

Industry Concentration: These occupations are concentrated in the electrical and electronic products industries and the machinery industries (except electrical machinery).

Trends: Employment is expected to grow at an average rate. A need for stricter quality control in increasingly complex electrical and electronic equipment may provide some job opportunities. At the same time, however, the growing use of lasers to detect defects and the possibility of robotic vision may limit future job growth to some extent.

Market Requirements: Experience as a worker in the field is sought.

8537 RADIO AND TELEVISION SERVICE REPAIRERS

Examples: Television Mechanic, Amplifier Repairer, Electronic Technician in the Furniture Industry

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
2 080	2 346	266	321	587

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
422	406	0	828

* Competition Index: 1.41

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.59	1	3.28
2	2.69	2	6.36
3	15.62	3	19.65
4	5.39	4	7.71
5	1.25	5	3.66
6	64.82	6	52.60
7	2.69	7	3.66
8	1.95	8	1.54
9	2.00	9	1.54

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.1%	Under 25 years:	24.3%	Full-time:	95.1%
Males:	98.9%	Over 54 years:	11.4%	Part-time:	4.9%

Industry Concentration: These occupations are concentrated in the trade and electrical products sectors.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, supply is expected to exceed demand. The increased durability and falling prices of audio and video equipment have limited somewhat the job openings for repairers working in repair shops, despite the surge in demand for such equipment, both in the home (computers and video game monitors) and as monitors in schools, production plants and improved building security.

Market Requirements: Entry to this occupational group requires a secondary long vocational course in electrotechnology, household electronic appliance servicer option.

CABINET AND WOOD FURNITURE MAKERS

8541

Examples: Furniture Cabinetmaker, Layout Marker, Hand Sander, Mirror Framer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
28 763	27 959	-804	3 015	2 211

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 044	231	0	2 275

° Competition Index: 1.03

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.84	1	6.49
2	2.91	2	7.77
3	12.75	3	22.15
4	10.41	4	10.52
5	2.60	5	2.75
6	63.65	6	44.86
7	2.21	7	3.51
8	1.06	8	1.27
9	0.56	9	0.68

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 5.0%
Males: 95.0%

Age Composition (1981)
Under 25 years: 30.3%
Over 54 years: 11.1%

Status Composition (1981)
Full-time: 95.3%
Part-time: 4.7%

Industry Concentration: These occupations are concentrated in the furniture and wood, and construction industries.

Trends: Employment is expected to drop over the next few years. Supply is likely to be greater than demand. These occupations remain basically manual, and therefore it is difficult to achieve economies of scale through modernization. Little change in tasks and qualifications is expected.

Market Requirements: There are a number of means of entry to these occupations. One requires a secondary short vocational course in furniture and construction and two to four years' on-the-job training under the supervision of an experienced cabinetmaker. Another requires a secondary short vocational course and a one- or two-year program in furniture and wood technology at the Victoriaville CEGEP. A community college diploma is an asset.

MOTOR VEHICLE MECHANICS AND REPAIRERS

8581

Examples: Motorcycle Repairer, Snowmobile Repairer, Body Repairer, Tune-up Person, Garage Mechanic, Body Repairer-Painter, Muffler Installer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
40 247	46 317	6 070	5 284	11 354

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
6 909	735	319	7 963

* Competition Index: 0.70

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.67	1	8.46
2	4.08	2	8.52
3	16.68	3	20.54
4	7.86	4	9.75
5	4.17	5	4.49
6	52.42	6	36.67
7	4.69	7	5.32
8	2.67	8	3.55
9	1.66	9	2.70

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	0.8%	Under 25 years:	28.8%	Full-time:	97.5%
Males:	99.2%	Over 54 years:	6.3%	Part-time:	2.5%

Industry Concentration: These occupations are concentrated in the trade sector.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Prospects are best for those who are familiar with such technological developments as safety and protection devices, electronic gadgetry on the dashboard as well as computer diagnosis. There is a trend toward specialization in some jobs. The repair of oil and gas gauges and anti-pollution devices has become an extremely specialized activity since the advent of light emitting diode (LED) gauges. Similarly, transmission repairers are becoming increasingly specialized. With the increase in the number of recreational vehicles and trailers, skills in installing and repairing shock absorbers and in automatic and manual balancing are increasingly in demand. With the advent of diesel engines, motor vehicle mechanics are finding it to be to their advantage to learn more about repairing such engines. As well, skills in practical hydraulics, pneumatics and automation are an asset to specialized workers. For industrial mechanics, knowledge of electronics, microelectronics and propane and diesel combustion engines is in demand. With respect to body repairers, people are generally replacing their cars rather than having them repaired, for safety reasons and because the

cost of labour is so high that replacement can be less expensive. Repairs using fibreglass are done more and more frequently in shops where snowmobiles and boats are repaired. This type of work will increase if the trend toward building fibreglass bodies continues. At the present time, there are few shops specializing in fibreglass repairs. With the influx of foreign cars, another factor affecting this group is the metrification of auto parts and tools.

Market Requirements: Entry to this occupational group usually requires a secondary long vocational course in motorized equipment, motor vehicle mechanic option. A complementary option in motor vehicle mechanics (one year) or body work and painting (short course), or body work (long course) or light vehicle mechanics is an asset depending on the job desired.

AIRCARFT MECHANICS AND REPAIRERS

Examples: Helicopter Mechanic, Aircraft Engine Mechanic, Jet Mechanic

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
3 060	3 422	362	373	735

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
190	311	--	501

* Competition Index: 0.68

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.14	3.03
2	2.25	5.19
3	1.63	11.26
4	1.14	4.76
5	0.03	1.73
6	91.74	61.04
7	0.45	3.03
8	1.32	4.76
9	1.28	5.19

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.4%
Males: 98.6%

Age Composition (1981)
Under 25 years: 18.7%
Over 54 years: 12.3%

Status Composition (1981)
Full-time: 98.8%
Part-time: 1.2%

Industry Concentration: These occupations are concentrated in the air transport and aircraft and parts sectors.

Trends: Employment is expected to increase at an above-average rate. The number of private and commercial aircraft will grow with population and income. Labour-saving advances, however, have limited the number of job openings for aircraft repairers. A greater emphasis on maintenance to deal with increasing energy costs and stringency of safety regulations may improve this occupational area. The establishment of a new helicopter plant may increase employment opportunities. The transportation industry in Quebec has indicated that it needs workers skilled in the application of computers to maintenance mechanics and in practical electronics and microelectronics.

Market Requirements: Entry to the occupation of aircraft mechanic requires a college diploma in aircraft maintenance with one or two years' on-the-job training. Graduates must have their own basic tools. Aircraft technicians are trained through a college program recognized by transport Canada and three to five years (depending on the speciality) of on-the-job training offered by the employer.

8583 RAIL TRANSPORT EQUIPMENT MECHANICS AND REPAIRERS

Examples: Streetcar and Subway Car Mechanic, Brake Repairer, Car Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 902	3 169	267	365	632

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
202	N/A	192	394

* Competition Index: 0,62

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.10	1	1.22
2	1.99	2	0.81
3	5.52	3	6.10
4	2.58	4	1.22
5	1.87	5	0.81
6	78.97	6	83.33
7	0.44	7	0.81
8	1.51	8	2.44
9	4.01	9	3.25

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.0%	Under 25 years:	21.9%	Full-time:	99.1%
Males:	99.0%	Over 54 years:	16.6%	Part-time:	0.9%

Industry Concentration: These occupations are concentrated in the rail transport sector.

Trends: Employment is expected to grow at the average rate. Employment trends in this occupational group depend on the level of activity in the rail transport sectors. At the national level, changes in the Crow's Nest rates and the possible doubling of the tracks are expected to increase rail traffic and lead to an additional need for maintenance and repair. This trend, however, could be countered by the use of new technologies such as digital inspection of trains.

Market Requirements: Information not available.

INDUSTRIAL, FARM AND CONSTRUCTION MACHINERY MECHANICS AND REPAIRERS

Examples: Knitting Machine Adjuster, Turbine Repairer, Farm Machinery Repairer, Sewing Machine Repairer, Diesel Mechanic

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
22 550	24 789	2 239	1 412	3 651

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
3 722	829	0	4 551

* Competition Index: 1.25

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.76	1	10.13
2	8.02	2	12.95
3	9.75	3	15.56
4	8.93	4	12.74
5	4.16	5	4.07
6	51.53	6	29.73
7	3.70	7	2.52
8	4.82	8	7.06
9	4.33	9	5.25

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.0%
Males: 99.0%

Age Composition (1981)
Under 25 years: 18.3%
Over 54 years: 11.2%

Status Composition (1981)
Full-time: 98.6%
Part-time: 1.4%

Industry Concentration: These occupations are found in a wide range of industries.

Trends: Employment is expected to grow at the average rate. Labour supply, which comes primarily from the secondary school system, is expected to exceed demand. The increasing complexity of farm machinery (transmission and engines) and industrial equipment will lead to greater opportunities for those who do maintenance and repair work. Technological changes in the farming equipment sector have encouraged the use of wet clutches rather than the dry type, hydrostatic transmissions rather than traditional manual or automatic ones, pneumatic control seeders rather that traditional ones, and the use of power steering. These advances have changed the jobs of farm machinery mechanics. Heavy machinery mechanics have also been affected by changes: gradual elimination of differential systems and replacement with hydrostatic controls, the use of wet friction clutches instead of dry clutches and the increased use of power steering all require new skills. Skills in the maintenance and repair of complex equipment involving robotics, welding, hydraulics, pneumatics, automation, computer-aided manufacturing processes, and computerization in the workplace are in demand.

Market Requirements: There is no specific educational requirement for these occupations. A secondary long vocational course in mechanics, maintenance mechanic option, or in agricultural technology, agricultural mechanics option, or in motorized equipment, diesel mechanics and heavy machinery options (depending on specialty) is a asset. In agricultural hydraulics technology, a college diploma is an important asset.

BUSINESS AND COMMERCIAL MACHINE MECHANICS AND REPAIRERS

Examples: Cash Register Mechanic, Electronic Machine Mechanic, Typewriter Servicer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 733	1 699	-34	407	373

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
94	214	0	308

- Competition Index: 0.83

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.15	2.61
2	2.16	4.35
3	8.33	18.26
4	5.03	6.09
5	1.25	3.48
6	76.05	58.26
7	4.07	1.74
8	0.81	5.22
9	1.15	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 2.4%
Males: 97.6%

Age Composition (1981)
Under 25 years: 30.6%
Over 54 years: 5.5%

Status Composition (1981)
Full-time: 97.1%
Part-time: 2.9%

Industry Concentration: These occupations are concentrated in the trade, and business services and machinery sectors.

Trends: Employment is expected to drop sharply over the next few years. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, supply is expected to exceed demand. Though business machines are becoming increasingly versatile as well as plentiful, the growing use of electronic components has made them more reliable and in need of less repair than previously. However, demand for typewriter and printer servicers is expected to remain strong, although demand for service of traditional typewriters will diminish with the more widespread use of word and data processing equipment. Servicing of photocopying machines and peripheral equipment and recording machines should increase with demand for such equipment. However, the growing variety and technical complexity of business machines has resulted in a trend toward specialization in a limited number of types and makes of equipment. With respect to dictating machines and telephone answering machines, the trend toward equipment requiring little maintenance will reduce the number of job opportunities. Ability to benefit from training is necessary in these occupations because the ongoing development of the equipment means continual upgrading of skills. Upgrading of functional and practical skills, rather than theoretical knowledge, is

essential for senior technicians (more than five years). Knowledge of microprocessors, digital circuits, servo systems, programmable monitors, telecommunications and data transmission is in demand.

Market Requirements: Entry to these occupations usually requires a secondary long vocational course in mechanics, business machine mechanic option. The industry has pointed out that training in human relations and the ability to communicate in the business world are necessary.

WATCH AND CLOCK REPAIRERS

Examples: Gas Meter Repairer, Watch Repairer, Parking Meter Mechanic

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
314	351	37	25	62

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
48	N/A	0	48

- Competition Index: 0.77

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.00	1	3.28
2	2.29	2	9.84
3	8.29	3	11.48
4	10.86	4	9.84
5	1.43	5	6.56
6	67.43	6	57.38
7	9.14	7	1.64
8	0.00	8	0.00
9	0.57	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 6.6%
Males: 93.4%

Age Composition (1981)
Under 25 years: 16.4%
Over 54 years: 21.3%

Status Composition (1981)
Full-time: 97.8%
Part-time: 2.2%

Industry Concentration: These occupations are concentrated in the trade sector.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. The increasing durability and falling prices of watches have reduced the need to repair them, since if something does go wrong, they can be replaced quite cheaply. And as watches are now made of modular components, repair time and therefore the need for repairers is reduced. However, there is a market for the maintenance of expensive time pieces. With respect to watch repairers, the above projections are likely to be overestimates of employment growth.

Market Requirements: Entry to the occupation of watchmaker requires a secondary long vocational course in mechanics, clockmaker option.

8588 PRECISION INSTRUMENT MECHANICS AND REPAIRERS

Examples: Camera Repairer, Gyroscope Repaired, Aircraft Instrument Mechanic, Medical Instrument Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
726	815	89		94	183

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
53	257	0	310

* Competition Index: 1.69

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.06	1	3.13
2	6.52	2	4.69
3	4.79	3	12.50
4	5.59	4	4.69
5	2.39	5	12.50
6	76.60	6	45.31
7	2.79	7	10.94
8	0.00	8	1.56
9	0.27	9	4.69

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	4.0%	Under 25 years:	20.5%	Full-time:	98.3%
Males:	96.0%	Over 54 years:	5.9%	Part-time:	1.7%

Industry Concentration: These occupations are concentrated in various service and manufacturing sectors, including the aircraft and trade sectors.

Trends: Employment is expected to grow at an above-average rate. Supply is expected to meet demand. The growing sophistication of instruments used in medicine, laboratories and the aircraft industry and of thermostats and telemetring instruments means a steady flow of job openings for workers specializing in the repair of precision instruments. There is a trend toward greater use of electric detectors, digital transmitters and indicators, electronic processing equipment, electronic transmitters, electric signal detectors and electronic control devices.

Market Requirements: Entry to these occupations requires a community college diploma in electrotechnology with a concentration in instrumentation-control followed by six to twelve months of on-the-job training. Knowledge of microcomputers and programming is an asset.

OTHER MECHANICS AND REPAIRERS, N.E.C.

Examples: Auto Greaser, Oil Burner Servicer, Gunsmith, Locksmith, Vending Machine Servicer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
3 192	3 613	421		612	1 033

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
455	115	284	854

* Competition Index: 0.83

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.31	1	3.03
2	4.68	2	3.39
3	16.32	3	14.26
4	7.19	4	10.16
5	2.17	5	5.10
6	57.72	6	54.90
7	5.08	7	4.99
8	2.60	8	2.32
9	1.93	9	1.25

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	4.1%	Under 25 years:	25.2%	Full-time:	95.8%
Males:	95.9%	Over 54 years:	12.4%	Part-time:	4.2%

Industry Concentration: These occupations are concentrated in the trade and miscellaneous services sectors.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. This occupational group, encompassing small-engine repairers, can be subject to various market fluctuations; for instance, the introduction of gas has reduced demand for oil burner servicers, but the demand for gas servicers has increased. With respect to the repair of hydraulic equipment, skills in practical hydraulics, pneumatics and automation are in demand.

Market Requirements: Entry to these occupations varies with specialty. Gunsmiths require some secondary schooling, locksmiths require secondary III, as do vending machine servicers, although a secondary long vocational course in electrotechnology, vending machine mechanic option, is an asset to the latter. Small-engine mechanics-repairers must have completed a secondary long vocational course in motorized equipment, light vehicle mechanic option.

8591 JEWELLERY AND SILVERWARE FABRICATING, ASSEMBLING AND REPAIRING OCCUPATIONS

Examples: Diamond Setter, Gem Cutter, Jeweller, Gemologist, Polisher

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
1 569	1 781	212		303	515

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
221	N/A	N/A	221

* Competition Index: 0.43

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	0.56	1	1.87
2	1.24	2	1.87
3	7.89	3	8.99
4	3.67	4	3.75
5	2.92	5	1.12
6	78.68	6	80.90
7	5.03	7	1.12
8	0.00	8	0.37
9	0.00	9	0.05

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	29.5%	Under 25 years:	19.4%	Full-time:	91.0%
Males:	70.5%	Over 54 years:	11.0%	Part-time:	9.0%

Industry Concentration: These occupations are concentrated in the miscellaneous manufacturers (mainly jewellery) and the trade (mainly jewellers) sectors.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Rising incomes leading to higher sales of new and old jewellery will open up some job opportunities in these occupations.

Market Requirements: Entry to these occupations is usually through a secondary long vocational course in mechanics, jeweller option. The Quebec Jewellers' Corporation offers a two-year correspondence course in jewellery making. Registration with the Corporation is not compulsory.

MARINE CRAFT FABRICATING, ASSEMBLING AND REPAIRING OCCUPATIONS

8592

Examples: Shipwright, Outboard Motor Mechanic, Wooden Boat Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 559	1 928	369	190	559

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
287	43	0	330

- Competition Index: 0.59

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.28	1	6.69
2	2.20	2	0.91
3	16.47	3	28.27
4	10.36	4	7.90
5	1.10	5	0.91
6	60.05	6	49.24
7	1.37	7	2.74
8	0.89	8	3.09
9	0.24	9	0.30

3. MAIN CHARACTERISTICS

Sex Composition (1981)	
Females:	2.4%
Males:	97.6%

Age Composition (1981)	
Under 25 years:	25.9%
Over 54 years:	14.2%

Status Composition (1981)	
Full-time:	93.4%
Part-time:	6.6%

Industry Concentration: These occupations are concentrated in the shipbuilding sector.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Trends in these occupations are directly related to trends in ship repair and maintenance. The economic outlook in this industry is not the brightest. The above projections are therefore likely to be overestimates of the employment growth in this occupational group.

Market Requirements: Entry to the occupation of outboard motor mechanic requires a secondary long vocational course in motorized equipment, light vehicle general mechanic option.

8711 EXCAVATING, GRADING AND RELATED OCCUPATIONS

Examples: Cat Operator, Heavy Equipment Operator, Grader Operator, Backhoe Operator, Pipe Layer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
10 776	12 068	1 292	1 674	2 966

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
4 672	43	0	4 715

° Competition Index: 1.59

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	8.11	1	10.16
2	6.40	2	9.18
3	17.73	3	21.00
4	9.31	4	11.26
5	4.33	5	3.55
6	36.98	6	24.46
7	6.94	7	6.39
8	5.94	8	7.17
9	4.27	9	6.88

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.0%	Under 25 years:	11.0%	Full-time:	98.1%
Males:	99.2%	Over 54 years:	10.6%	Part-time:	1.9%

Industry Concentration: These occupations are concentrated in the construction industry.

Trends: Employment is expected to grow at an above-average rate. The suply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Technological advances improving the machinery operated by this group have tended to increase productivity and limit employment growth.

Market Requirements: There are no specific educational requirements for heavy equipment operators. However, a secondary long vocational course in motorized equipment, digger operator or heavy equipment operator option, is an asset. Certification is compulsory in Quebec. Employment is seasonal.

ELECTRICAL POWER LINE WORKERS AND RELATED OCCUPATIONS

8731

Examples: Lineman, Cable Installer-Repairer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
2 885	3 167	282		244	526

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
550	N/A	0	550

- Competition Index: 1.05

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.56	1	5.05
2	5.16	2	10.41
3	14.71	3	35.80
4	12.87	4	11.83
5	4.27	5	2.37
6	45.65	6	18.61
7	3.97	7	2.21
8	4.30	8	2.21
9	4.50	9	11.51

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.5%
Males: 98.5%

Age Composition (1981)
Under 25 years: 17.1%
Over 54 years: 4.1%

Status Composition (1981)
Full-time: 98.7%
Part-time: 1.3%

Industry Concentration: These occupations are concentrated in the electrical energy and construction sectors.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. The trade is subject to major changes in regional employment patterns as utilities construct new transmission lines. Mobility is therefore an important asset. There is a trend among employers toward substituting less-skilled labour for linemen, a factor that is of regional importance. Skills in blueprint reading, assembling and network repair and maintenance are in demand among linemen-repairers. Technological changes are not expected to affect the general trends in this group.

Market Requirements: Entry to these occupations usually requires a secondary long vocational course in electrotechnology, construction electrician option. Employment is seasonal.

8733 CONSTRUCTION ELECTRICIANS AND REPAIRERS

Examples: Meter Installer, Electrical Contractor, Building Wireman

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
11 483	12 080	597	835	1 432

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
3 126	71	0	3 197

* Competition Index: 2.23

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.42	1	5.49
2	5.71	2	10.80
3	11.56	3	16.89
4	7.60	4	8.56
5	3.13	5	2.36
6	56.22	6	44.39
7	4.50	7	4.36
8	5.26	8	4.10
9	2.60	9	3.05

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.0%
Males: 99.0%

Age Composition (1981)
Under 25 years: 20.7%
Over 54 years: 6.2%

Status Composition (1981)
Full-time: 96.5%
Part-time: 3.5%

Industry Concentration: These occupations are concentrated in the construction industry.

Trends: Employment is expected to grow at a below-average rate. Supply will likely exceed demand. Construction electricians are employed in all sectors of the construction industry on new and repair work. Other industries employ electricians in a maintenance capacity and for non-contract construction work. Employment varies with the investment cycle. The employment effects of recent technological change have not been significant. New skills are required as a result of increased us of PVC covering and the replacement of old conduits with mineral-insulated and aluminum-covered cable.

Market Requirements: There are no specific educational requirements for entry to these occupations. However, a secondary long vocational course in electrotechnology, construction electrician or maintenance electrician option, is an asset. Knowledge of first aid is becoming increasingly important. Certification is compulsory.

WIRE COMMUNICATIONS AND RELATED EQUIPMENT INSTALLING AND REPAIRING OCCUPATIONS

Examples: Line Installer, Alarm System Installer, Telephone Electrician, Switchboard Repairer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
6 830	7 320	490	909	1 399

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
312	142	0	454

* Competition Index: 0.32

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.45	1	4.22
2	2.66	2	5.01
3	13.14	3	13.46
4	5.19	4	6.86
5	2.35	5	3.96
6	64.95	6	60.69
7	3.84	7	3.17
8	2.42	8	2.11
9	2.00	9	0.53

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	4.7%	Under 25 years:	28.2%	Full-time:	98.8%
Males:	95.3%	Over 54 years:	4.8%	Part-time:	1.2%

Industry Concentration: These occupations are concentrated in the public utilities (telephone and telegraph) sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Technological advances have had a major impact on the telecommunications sector. The computer as a switching device is widespread and replaces the earlier electromechanical switches, which needed considerable routine maintenance. The need for diagnosis and trouble shooting is engineered into the equipment, and the need for maintenance has been considerably reduced. Some job openings will be created by increased demand for telephone, switchboard, data transmission, burglar alarms, fire detectors and cable television services. However, opportunities may be limited somewhat by such technological advances as satellites, microwave systems, fibre optics and pre-wired buildings.

Market Requirements: Entry to these occupations usually requires a secondary long vocational course in electrotechnology, installer and repairer of telecommunications equipment option. Communications equipment technicians must have a community college diploma in electronics and telecommunications.

8736 INSPECTING, TESTING, GRADING AND SAMPLING OCCUPATIONS: ELECTRICAL POWER, LIGHTING AND WIRE COMMUNICATIONS EQUIPMENT ERECTING, INSTALLING AND REPAIRING

Examples: Line Inspector, Telecom Powerline Patroller, Load Checker, Test-table Operator, Switch Inspector

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
2 112	2 259	147	279	426

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
30	71	0	101

° Competition Index: 0.24

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.42	1	2.78
2	3.70	2	5.56
3	8.65	3	8.33
4	8.25	4	13.89
5	1.94	5	5.56
6	63.75	6	58.33
7	4.10	7	2.78
8	2.57	8	0.00
9	2.93	9	2.78

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	13.9%	Under 25 years:	16.5%	Full-time:	98.1%
Males:	86.2%	Over 54 years:	9.9%	Part-time:	1.9%

Industry Concentration: These occupations are concentrated in the telephone and telegraph, communications and electrical/electronic products sectors.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. The computerization of switching systems has meant that diagnosis is engineered into the equipment. Consequently, the demand for inspectors in the telephone and telegraph sectors has declined.

Market Requirements: Access to the occupation of electrical meter instrument mechanic requires a secondary long vocational course in electrotechnology, construction electrician option.

CARPENTERS AND RELATED OCCUPATIONS

Examples: Carpenter, Joiner, Framer, Form Builder, Wood Tile Layer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
23 176	26 156	2 980	2 833	5 813

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
7 904	429	199	8 532

- Competition Index: 0.5

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.32	10.28
2	4.66	9.08
3	16.78	22.03
4	6.72	8.53
5	4.44	3.68
6	48.05	32.24
7	5.64	6.23
8	4.51	4.22
9	1.82	3.71

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.7%
Males: 99.3%

Age Composition (1981)
Under 25 years: 13.6%
Over 54 years: 19.2%

Status Composition (1981)
Full-time: 94.8%
Part-time: 5.2%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at an above-average rate. Labour supply is expected to exceed demand. Technological advances, new methods of construction and new building materials are likely to increase productivity and consequently have a negative effect on employment. There is a trend toward replacing wood with aluminum or plastic for building cornices. Prefabrication of various components is becoming more widespread, including not only semi-finished walls but also porches and steps as well as pre-assembled, carpeted staircases. The use of adjustable metal poles for beams has become widespread. All these factors force carpenters to undertake training in order to broaden their skills, in spite of a trend toward greater specialization.

Market Requirements: A secondary long vocational course in furniture and construction, construction carpenter option, is an asset. Certification is compulsory.

8782 BRICK AND STONE MASONS AND TILESETTERS

Examples: Bricklayer, Terrazzo Setter, Brick Setter, Tombstone Setter

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
4 480	4 762	282	552	834

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
470	N/A	N/A	470

* Competition Index: 0.56

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.71	1	4.24
2	4.80	2	6.42
3	13.20	3	17.85
4	9.84	4	8.65
5	4.98	5	3.92
6	55.65	6	52.29
7	5.27	7	3.81
8	1.80	8	1.74
9	0.76	9	1.09

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.5%
Males: 99.5%

Age Composition (1981)
Under 25 years: 12.5%
Over 54 years: 12.3%

Status Composition (1981)
Full-time: 89.6%
Part-time: 10.4%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. There is a trend in the construction industry toward using prefabricated cement panels, metal chimneys and wall insulation. However, technological advances have had little impact on these occupations. Opportunities for stone masons are limited owing to the cost of stone as a building material. The outlook for tilesetters is good, since the use of tile in the home, restaurants and offices has increased. A knowledge of compressed air, hydraulic or mechanical lifting devices, which are increasingly diversified, is an asset, although lifting on major construction sites is done by riggers or labourers.

Market Requirements: There is no specific educational requirement for bricklayer-masons, although a secondary long vocational course in furniture and construction, bricklayer-mason option, is an asset. A construction worker option gives an advantage to tilesetters.

CONCRETE FINISHING AND RELATED OCCUPATIONS

8783

Examples: Cement Mason, Cement Finisher, Sidewalk Layer, Terrazzo Worker

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 279	1 417	138	126	264

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
470	N/A	N/A	470

* Competition Index: 1.78

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.23	1	5.13
2	3.87	2	4.07
3	11.38	3	15.56
4	8.17	4	7.43
5	2.04	5	2.83
6	61.85	6	59.47
7	5.32	7	2.30
8	2.99	8	1.24
9	0.15	9	1.95

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.3%
Males: 99.7%

Age Composition (1981)
Under 25 years: 14.1%
Over 54 years: 13.4%

Status Composition (1981)
Full-time: 90.0%
Part-time: 10.0%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at the average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Cement masons work mainly on non-residential construction projects and in some engineering sectors of the industry. The trend toward greater use of concrete construction will tend to increase employment. In terms of employment, technological change has not had a significant effect.

Market Requirements: There is no specific educational requirement for entry to these occupations but a secondary long vocational course in furniture and construction, construction worker option, is an asset. Certification is compulsory in Quebec. Employment is seasonal.

8784 PLASTERERS AND RELATED OCCUPATIONS

Examples: Plasterer, Drywall Installer, Stucco Plasterer, Joint Filler

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 + Attrition 1985-93	Total requirements 1985-93
2 084	2 207	123 / 330	453

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
585	N/A	N/A	585

* Competition Index: 1.29

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.31	1	1.56
2	1.45	2	4.40
3	17.55	3	23.15
4	6.50	4	6.39
5	6.74	5	4.55
6	53.11	6	41.05
7	11.09	7	15.48
8	2.15	8	2.84
9	0.09	9	0.57

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.6%
Males: 99.4%

Age Composition (1981)
Under 25 years: 14.0%
Over 54 years: 6.4%

Status Composition (1981)
Full-time: 90.2%
Part-time: 9.8%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. The number of workers willing to work in this field is expected to exceed demand. Employment trends in the occupational group depend on activity in the construction industry. The outlook in residential construction remains uncertain, whereas the non-residential market should be more active. Renovation is booming and provides some openings for plasterers. However, advances in building technology have reduced demand for plasterers because of the greater use of drywall to replace traditional techniques. Prospects are still not very bright for these occupations.

Market Requirements: There is no specific educational requirement for these occupations. However, a secondary long vocational course in furniture and construction, construction worker option, is an asset.

PAINTERS, PAPERHANGERS AND RELATED OCCUPATIONS

Examples: Painter, Paperhanger, Bill Poster

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
7 745	8 151	406	759	1 165

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 438	258	0	1 696

* Competition Index: 1.46

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.02	1	5.01
2	3.20	2	6.69
3	12.68	3	18.44
4	5.70	4	7.03
5	3.60	5	3.00
6	61.00	6	49.22
7	6.04	7	6.46
8	2.61	8	2.42
9	1.16	9	1.73

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 3.5%
Males: 96.5%

Age Composition (1981)
Under 25 years: 18.7%
Over 54 years: 14.3%

Status Composition (1981)
Full-time: 95.3%
Part-time: 4.7%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. The number of workers willing to work in this field is expected to exceed demand. Technological change, such as the advent of power spray painting, has affected demand for painters. The number of painters in the construction workforce, however, has remained relatively stable over the last decade.

Market Requirements: Entry to these occupations does not have a specific educational requirement, but a secondary long vocational course in furniture and construction, painter and paperhanger option, is an asset.

8786 INSULATING OCCUPATIONS, CONSTRUCTION

Examples: Insulation Installer, Insulation Blower, Asbestos Insulator

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
1 348	1 399	51	92	143

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
308	N/A	N/A	308

* Competition Index: 2.15

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.56	1	2.13
2	3.71	2	4.52
3	14.99	3	17.55
4	5.24	4	7.71
5	5.71	5	4.52
6	58.01	6	55.05
7	6.16	7	7.71
8	2.56	8	0.27
9	0.00	9	0.53

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.6%	Under 25 years:	28.4%	Full-time:	91.7%
Males:	98.4%	Over 54 years:	6.0%	Part-time:	8.3%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a distinctly below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, supply is expected to exceed demand. Higher standards of insulating and energy efficiency in new construction have created employment opportunities. New work methods using prefabricated panels already insulated could affect employment growth in these occupations as the new panels become more popular. The discontinuation of a number of government programs to provide assistance for construction and home improvement may have a negative effect on employment.

Market Requirements: There is no educational requirement for entry to these occupations. A secondary long vocational course in furniture and construction, construction worker option, is an asset.

ROOFING, WATERPROOFING AND RELATED OCCUPATIONS

Examples: Roofer, Waterproofer, Tar Roofer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 481	1 534	53	201	254

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
752	N/A	N/A	752

* Competition Index: 2.96

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.46	2.71
2	3.59	3.80
3	14.49	11.62
4	5.51	8.03
5	3.65	3.91
6	55.15	55.05
7	11.36	13.14
8	2.66	1.30
9	0.13	0.43

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 0.9%
Males: 99.1%

Age Composition (1981)
Under 25 years: 25.1%
Over 54 years: 4.1%

Status Composition (1981)
Full-time: 91.7%
Part-time: 8.3%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a below-average rate. The number of workers willing to work in this field is likely to exceed demand. These occupations are sensitive to swings in the constructions industry. However, repairs and renovation make employment in this occupation somewhat less sensitive to cyclical swings in investment in construction. With new materials combining vapour barriers and damp-proof membranes, one secondary job has been eliminated. Shingling has a stable future. Metal roofing will still be used often, especially since solar heating systems require a metal roof. Clay tiles are rarely used; most buildings with clay-tile roofs are more than 50 years old. Future trends are not toward employment growth for tile layers.

Market Requirements: There is no specific educational requirement. A secondary long vocational course in furniture and construction, construction worker option, is an asset.

8791 PIPEFITTING, PLUMBING AND RELATED OCCUPATIONS

Examples: Plumber, Pipefitter, Steamfitter, Sprinklerfitter, Heating Unit Installer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
11 014	11 712	698	911	1 609

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
2 213	95	N/A	2 308

* Competition Index: 1.43

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.28	1	3.89
2	4.65	2	6.42
3	10.21	3	13.77
4	7.79	4	10.71
5	3.84	5	4.11
6	61.33	6	52.18
7	5.87	7	3.84
8	2.38	8	2.95
9	1.75	9	2.16

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	0.7%	Under 25 years:	11.8%	Full-time:	96.3%
Males:	99.3%	Over 54 years:	11.6%	Part-time:	3.7%

Industry Concentration: These occupations are concentrated in the construction sector.

Trends: Employment is expected to grow at a below-average rate. The number of workers willing to work in these occupations is likely to exceed demand. Employment in this group depends on activity in the construction sector and is subject to cyclical fluctuations, but this is cushioned, to a degree, by work needed on existing piping. Technological changes have had an impact on the methods and materials used in this area. Plastic pipe is often used, and constant improvements to it could further increase its use. The improved materials are used for draining acidic, corrosive, chemical and bacterial wastes, requiring new fitting methods. Use of hygienic appliances such as bidets, sauna baths and whirlpools is growing. Technological advances have not, however, led to a significant change in the proportional occupational share in the construction workforce over the last 10 years. Skills in blueprint reading and welding are in demand.

Market Requirements: There is no specific educational requirement for entry to these occupations, but a secondary long vocational course in HVAC, plumbing-heating or pipe fitting option, is an asset. Mobility is necessary.

STRUCTURAL METAL ERECTORS

8793

Examples: Structural Metal Erector, Construction Ironworker

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 709	2 019	310	139	449

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 100	N/A	N/A	1 100

- Competition Index: 2.45

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)	REGULAR ACTIVE CLAIMANTS 1985 (%)
1	7.77	11.07
2	4.55	7.40
3	18.00	16.38
4	10.55	6.43
5	3.43	1.87
6	43.97	43.61
7	2.84	3.29
8	6.32	3.14
9	2.57	6.81

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 1.2%
Males: 98.3%

Age Composition (1981)
Under 25 years: 15.0%
Over 54 years: 7.9%

Status Composition (1981)
Full-time: 95.3%
Part-time: 4.7%

Industry Concentration: These occupations are concentrated in the construction and metal fabricating sectors.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Therefore, supply is expected to exceed demand. Construction ironworkers, employed in the construction industry, account for slightly less than one-half of the employed stock of structural metal erectors. Ironworkers are employed in the non-residential building and engineering sectors of the construction industry. Employment is subject to cyclical fluctuations. Technological change has not had a significant employment impact in recent years.

Market Requirements: Entry to the construction ironworker trade is through a compulsory apprenticeship program governed by the province. Certification is compulsory. Apprentices must find an employer willing to guarantee a minimum of employment.

8795 GLAZIERS

Examples: Glazier, Glass Installer, Windshield Repairer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
1 162	1 320	158	198	356

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
332	N/A	N/A	332

° Competition Index: 0.93

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.68	1	4.93
2	4.77	2	5.17
3	13.39	3	18.97
4	6.69	4	5.17
5	4.35	5	4.68
6	57.66	6	50.99
7	5.02	7	7.64
8	2.09	8	1.97
9	2.34	9	0.49

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.5%	Under 25 years:	26.8%	Full-time:	99.1%
Males:	96.5%	Over 54 years:	5.1%	Part-time:	0.9%

Industry Concentration: These occupations are concentrated in the construction and glass products industries.

Trends: Employment is expected to grow at an above-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Although these occupations are affected by variations in the construction industry, employment is less subject to cyclical fluctuations because glass must be replaced frequently. New methods of installing glass in buildings have affected employment. Employment opportunities may result from the retrofitting of double and triple glazed windows as a measure to increase the energy efficiency of buildings.

Market Requirements: Entry to these occupations is through a compulsory apprenticeship program governed by the province. A certificate of qualification issued by the parity committee of the flat glass industry is compulsory.

AIR PILOTS, NAVIGATORS AND FLIGHT ENGINEERS

Examples: Commercial Pilot, Helicopter Pilot, Aircraft Captain, Flight Engineer, Aerial Crop Duster Pilot

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
1 404	1 524	120		134	254

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
314	N/A	121	435

* Competition Index: 1.71

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.61	1	2.57
2	6.59	2	5.91
3	15.90	3	15.68
4	1.53	4	31.11
5	0.64	5	2.06
6	62.41	6	31.11
7	4.26	7	3.86
8	2.09	8	4.11
9	4.98	9	3.60

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	3.6%	Under 25 years:	18.4%	Full-time:	97.9%
Males:	96.4%	Over 54 years:	1.6%	Part-time:	2.1%

Industry Concentration: These occupations are concentrated in the air transport sector.

Trends: Employment is expected to grow at the average rate. Supply is likely to exceed demand. Ongoing deregulation in the airline industry may have a considerable impact on this group as adjustments are made to adapt to a more competitive environment. As airlines offer new routes, some openings may occur with smaller regional carriers. For helicopter pilots, a turbine helicopter endorsement is essential. There are always openings in instructing and dusting. The number of logged hours is a determining factor for placement, because the market currently has a surplus of pilots. The Armed Forces are a good source of employment. The job market is national.

Market Requirements: Entry to these occupations requires a commercial pilot's licence. There are various ways of obtaining a licence. One way requires a community college diploma in aeronautics with a concentration in piloting. Another requires successful completion of a training program at a recognized flying club or school. A pilot's licence is compulsory, and college graduates receive it automatically. A turbine helicopter endorsement is essential for all helicopter pilots.

9131 LOCOMOTIVE OPERATING OCCUPATIONS

Examples: Locomotive Engineer, Industrial Locomotive Operator, Diesel Locomotive Engineer, Outside Hostler

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	**Total requirements 1985-93**
1 517	1 648	131	215	346

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
61	N/A	N/A	61

* Competition Index: 0.18

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.65	1	4.05
2	4.06	2	4.05
3	11.58	3	12.16
4	6.19	4	2.90
5	2.58	5	1.35
6	58.92	6	63.51
7	1.55	7	1.35
8	3.10	8	1.35
9	7.37	9	9.46

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.8%	Under 25 years:	11.1%	Full-time:	98.8%
Males:	98.2%	Over 54 years:	19.8%	Part-time:	1.2%

Industry Concentration: These occupations are concentrated in the rail transport sector.

Trends: Employment is expected to grow at the average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. Employment prospects in these occupations depend on the outlook in the rail transport sector. With ongoing deregulation, sector railway companies are becoming more competitive with other forms of transportation, particularly trucking, by developing and marketing intermodal services. Computerized operating systems - such as advanced train control in modular units, microprocessors and digital technology for train inspection, locomotive performance monitoring and on-board diagnostics - will result in higher productivity but fewer employment opportunities.

Market Requirements: Entry to these occupations requires a secondary school leaving certificate. Before undertaking training as a locomotive engineer, candidates are required to have 28 to 36 months of job experience as a trainman/woman and pass an admission examination. Candidates must complete and eight-week program of studies at the GIMLI training centre in Manitoba. On-the-job training is then required.

DECK OFFICERS

Examples: Ship's Captain, Marine Pilot, Deck Officer, Tugboat Operator

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
1 026	1 107	81	125	206

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
206	N/A	N/A	206

- Competition Index: 1.0

2. DISTRIBUTION BY REGION OF QUEBEC e

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	12.18	1	12.03
2	0.88	2	1.50
3	40.67	3	39.10
4	7.56	4	8.27
5	0.00	5	0.38
6	32.91	6	34.96
7	1.57	7	1.88
8	0.00	8	0.38
9	4.22	9	1.50

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 2.4%
Males: 97.6%

Age Composition (1981)
Under 25 years: 8.9%
Over 54 years: 16.9%

Status Composition (1981)
Full-time: 97.6%
Part-time: 2.4%

Industry Concentration: These occupations are concentrated in the water transport sector.
Trends: Employment is expected to grow at a below-average rate, based on the outlook in the water transport and related services sectors where these occupations are concentrated. Job openings are limited geographically to the Great Lakes, Canadian coastal areas and the St Lawrence Seaway. The demand for water transport will be fairly flat. As explorations continue in offshore oil and gas developments, the demand for deck officers may increase. The demand for deck officers will be affected by the number of oil rigs and the number of supply vessels required to service and provide safety and emergency operations. Within the offshore marine industry, however, turnover rates are low as qualified deck officers are reluctant to change their careers. In general there are few openings at the rank of third mate, but there is a demand for candidates at a higher rank. Job entry is difficult, and positions are obtained mainly through officer apprentice training.
Market Requirements: A community college diploma is not compulsory but is required to obtain a remission of sea time from the Department of Transport. However, a college diploma in marine technology is an asset. Graduates are eligible for a second mate's certificate and may obtain some credits toward being eligible to write the captain's examination. Mobility is essential. Knowledge of first aid is required. Certification is compulsory, and ship's commanders are certified according to type of vessel and waters they sail in.

9153 SHIP ENGINEERING OFFICERS

Examples: Chief Marine Engineer, Diesel Engineer Officer, Engineer Officer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	Total requirements 1985-93
480	530	50		56	106

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
115	N/A	N/A	115

* Competition Index: 1.08

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	13.20	1	18.24
2	1.86	2	0.68
3	22.81	3	37.84
4	3.92	4	4.05
5	1.03	5	0.68
6	41.44	6	37.16
7	1.03	7	0.00
8	1.03	8	0.00
9	2.68	9	1.35

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	0%	Under 25 years:	14.0%	Full-time:	97.1%
Males:	100.0%	Over 54 years:	19.6%	Part-time:	2.9%

Industry Concentration: These occupations are concentrated in the water transport, public administration and shipbuilding and repair sectors.

Trends: Employment is expected to grow at the average rate. Information on the supply coming from the educational system is not currently available. The supply of labour, however, is likely to exceed demand over the next few years. Job openings are confined mainly to the coasts and Great Lakes of Canada. Marine human resource requirements could be affected by offshore natural gas activity off the coasts of Nova Scotia and Newfoundland. Requirements are related to the number of rigs, since each rig could require approximately three supply vessels, thus contributing to the demand for these occupations. The constant improvement in reliability and performance of semiconductor navigational equipment will continue to limit navigational systems and materiel maintenance operations and reduce the number of necessary routine checks.

Market Requirements: There are a number of ways to enter these occupations: a college diploma in marine technology with a concentration in marine mechanics, or approximately four years' experience as a machinist in a firm specializing in ship engines, or three or four years' experience as a machine operator (oiler and greaser, assistant fireman-engineer or engineer on a ship, or a watch engineer on a Canadian Forces vessel). Certification by Transport Canada is compulsory. There are four classes of certificate. Mobility is essential. Technical training at the Ecole de technologie supérieure provides entry to jobs on land.

BUS DRIVERS

Examples: School Bus Driver, Bus Operator

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
13 391	14 358	967	2 930	3 897

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
1 725	43	209	1 977

- Competition Index: 0.51

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	5.28	1	5.67
2	3.53	2	5.63
3	17.50	3	18.91
4	6.19	4	8.95
5	3.40	5	5.14
6	52.16	6	44.23
7	8.36	7	5.31
8	2.53	8	4.21
9	1.06	9	1.86

3. MAIN CHARACTERISTICS

Sex Composition (1981)	
Females:	16.0%
Males:	84.0%

Age Composition (1981)	
Under 25 years:	5.6%
Over 54 years:	16.7%

Status Composition (1981)	
Full-time:	97.0%
Part-time:	3.0%

Industry Concentration: These occupations are concentrated in the transportation services sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. No specific educational requirement is needed for entry to these occupations. Greater use of urban transit services could create some job openings, although other means of transportation such as the expansion of the metro could reduce demand for bus drivers. The demand for long-distance, inter-city bus transport is fairly insensitive to swings in the economy, resulting in steady demand for bus drivers of this type.

Market Requirements: Successful completion of a defensive driving course is an asset. A Class 11 driver's licence issued by the Quebec Automobile Insurance Board is required. Two weeks of on-the-job training under the supervision of an experienced operator is required.

9175 TRUCK DRIVERS

Examples: Armoured Car Driver, Automobile Transport Driver, Oil Truck Driver, Milk Hauler, Delivery Driver

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+	Attrition 1985-93	**Total requirements 1985-93**
65 657	70 971	5 314		8 011	13 325

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
12 580	146	121	12 847

* Competition Index: 0.96

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	4.77	1	6.62
2	4.63	2	8.03
3	13.90	3	17.38
4	1.45	4	8.58
5	3.24	5	3.25
6	56.86	6	43.21
7	4.39	7	5.66
8	3.33	8	4.91
9	1.43	9	2.36

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	1.0%	Under 25 years:	19.4%	Full-time:	96.4%
Males:	99.0%	Over 54 years:	8.1%	Part-time:	3.6%

Industry Concentration: These occupations are concentrated in the transport and trade sectors.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections is an underestimate of the actual supply, much of which comes from the secondary school system. With ongoing deregulation in the road transport sector, trucking companies may face stronger competition from American trucking companies and other modes of freight transport such as the railways. Aggressive competition from the railway, with its piggyback services between Montreal and Toronto, could limit employment growth in trucking companies. Because of the use of larger trucks, the increased demand for inter-provincial trucking will not create may new job openings.

Market Requirements: Entry to the occupation of heavy truck driver requires a minimum of ten years' schooling. Successful completion of a defensive driving course and trucker training program is an asset. A Class 21 or 22 driver's licence is required. A novice trucker usually drives a van before going on to larger vehicles. Van drivers must have nine years' schooling and a Class 41 or 42 driver's licence. One means of entry is to begin as a loader or driver helper.

PRINTING PRESS OCCUPATIONS

Examples: Lithographic Press Operator, Offset Press Operator, Rotoprinter, Paper Printer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	**Total requirements 1985-93**
7 149	8 121	972	4 463	5 435

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
731	N/A	N/A	731

* Competition Index: 0.13

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	1.32	1	0.91
2	1.22	2	1.48
3	9.05	3	11.82
4	5.55	4	4.43
5	2.83	5	2.84
6	75.59	6	74.82
7	3.31	7	2.95
8	0.58	8	0.34
9	0.55	9	0.34

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.4%
Males: 90.6%

Age Composition (1981)
Under 25 years: 28.6%
Over 54 years: 5.9%

Status Composition (1981)
Full-time: 98.2%
Part-time: 1.8%

Industry Concentration: These occupations are concentrated in the printing and publishing sectors.

Trends: Employment is expected to grow at an above-average rate. Employment prospects in this group depend on the outlook in the printing and publishing sectors. Employment trends will differ within printing press occupations. Moderate growth is expected for lithographic press operators as offset lithography is now the main process used in the commercial printing industry. The growth of flexographic printing used in the production of flexible packaging and for imprinting is expected to be moderate. But as the proces continues to be refined it could become more competitive with lithography. Employment growth in lithography may be limited. Copper-plate or rotogravure is used for long-run printing such as catalogues, newspaper inserts and high-quality folding cartons. Some growth is expected in the folding carton market. The use of letterpress printing has declined and it is not expected to be a factor in the commercial printing industry. Rapid technological change will gradually alter the printing press labour market and occupations. The printing industry is entering the era of computers and the laser. The 1990s will likely be characterized by a strong trend away from offset printing technology toward laser techniques.

Market Requirements: A community college diploma in graphic communications with a concentration in typography or printing is an asset. Practical experience is more important than a diploma.

9515 PHOTOENGRAVING AND RELATED OCCUPATIONS

Examples: Camera Operator - Printing, Plate Maker, Pantographer, Offset Lithographic Plate Maker

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
817	935	118	190	308

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
125	75	N/A	200

* Competition Index: 0.65

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.13	1	1.32
2	2.12	2	0.66
3	2.98	3	4.64
4	2.32	4	6.62
5	4.04	5	3.97
6	77.88	6	79.47
7	2.53	7	1.99
8	0.00	8	0.66
9	0.00	9	0.66

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	13.4%	Under 25 years:	17.2%	Full-time:	95.5%
Males:	86.6%	Over 54 years:	7.0%	Part-time:	4.5%

Industry Concentration: These occupations are concentrated in the printing and publishing sectors.

Trends: Employment is expected to grow at an above-average rate. Employment trends will follow trends in the printing and publishing industries, which are showing some strength, especially in the areas of advertising material and business forms. The continuing shift to offset printing from letterpress will limit chances for employment of photoengravers who are employed only in the letterpress process. The application of laser technology could offer opportunities to photoengravers. Moderate growth in pre-press employment is expected. Because of differences in film preparation techniques used in the making of printing surfaces, additional skills are required to prepare the film for all processes.

Market Requirements: Entry to these occupations requires a secondary long vocational course in printing, letterpress option, or a community college diploma in graphic communications with a concentration in photolithography. Experience acquired during training is an asset. Precision and an ability to master various operations are important qualifications for jobs in estimating and planning.

POWER STATION OPERATORS

9531

Examples: Diesel Plant Operator, Generation Station Operator, Hydro Operator, Nuclear Reactor Operator

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
1 128	1 188	60	186	246

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
27	N/A	N/A	27

* Competition Index: 0.11

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	3.01	1	3.33
2	3.76	2	3.33
3	5.10	3	6.67
4	20.63	4	26.67
5	3.09	5	0.00
6	42.94	6	46.67
7	8.02	7	6.67
8	2.67	8	3.33
9	10.78	9	3.33

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	4.3%	Under 25 years:	16.7%	Full-time:	100.0%
Males:	95.6%	Over 54 years:	14.9%	Part-time:	-

Industry Concentration: These occupations are concentrated in the electric power sector.

Trends: Employment is expected to grow at a below-average rate. The supply shown by our projections in an underestimate of the actual supply, much of which comes from the secondary school system. The wider use of telemetering instruments, automation and centralized equipment could limit job opportunities. Also, since the number of power stations has stabilized, the occupational growth projections listed here may be optimistic. A number of jobs such as generator switchboard operator, diesel plant operator, computer operator and power control room operator could be performed by second class stationary engineers. Similarly, monitoring of feeder-circuit switching could be performed by a third class stationary engineers, and this could increase competition for station operators.

Market Requirements: Entry to these occupations usually requires a secondary school diploma including mathematics and physics. Computer courses are advantage. For nuclear reactor operators, a general college degree in pure and applied sciences or the three-year career program in physical technology is an asset. It takes about ten years of on-the-job training and specialized studies with examinations to become a first class operator.

9539 STATIONARY ENGINE AND UTILITIES EQUIPMENT OPERATING AND RELATED OCCUPATINS, N.E.C.

Examples: Cooling System Operator, Dam Attendant, Incinerator Operator, Purification Plant Operator, Boiler Operator

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993 +	Attrition 1985-93	Total requirements 1985-93
8 551	9 068	517	968	1 485

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
704	130	151	985

* Competition Index: 0.66

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.73	1	0.00
2	4.91	2	0.00
3	11.18	3	11.11
4	9.14	4	11.11
5	4.45	5	11.11
6	58.44	6	66.67
7	4.19	7	0.00
8	3.04	8	0.00
9	1.92	9	0.00

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	2.1%	Under 25 years:	16.0%	Full-time:	98.4%
Males:	97.8%	Over 54 years:	16.4%	Part-time:	1.6%

Industry Concentration: These occupations are found in a wide range of economic sectors.

Trends: Employment is expected to grow at a below-average rate. Occupations in this category include operators of stationary engines, water and sanitation utilities equipment and pumping and pipeline equipment. The fact that such equipment is being increasingly operated from a centralized console may limit job opportunities in this group. The growing use of central control panels and closed-circuit television reduces the need for tending the equipment directly. Automatic control systems, valve regulators and other devices are replacing manual controls. A stationary engineer's work is becoming more complex. He or she needs a good knowledge not only of mechanical engineering but also of electricity and electrical instruments.

Market Requirements: Employment is usually year round. A number of plants operate around the clock with rotating shifts that involve working some weekends and holidays.

RADIO AND TELEVISION BROADCASTING EQUIPMENT OPERATORS 9551

Examples: Broadcast Engineer, Studio Control Operator, Video Operator, Telecasting Engineer

1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	Total requirements 1985-93
646	688	42	89	131

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	Partial Supply 1985-1993
31	261	0	292

- Competition Index: 2.23

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	9.68	1	3.23
2	1.12	2	3.22
3	7.57	3	35.48
4	1.26	4	6.45
5	3.37	5	3.23
6	65.92	6	45.16
7	5.75	7	0.00
8	1.40	8	0.00
9	3.40	9	3.23

3. MAIN CHARACTERISTICS

Sex Composition (1981)		Age Composition (1981)		Status Composition (1981)	
Females:	19.7%	Under 25 years:	31.1%	Full-time:	95.2%
Males:	80.3%	Over 54 years:	37.9%	Part-time:	4.8%

Industry Concentration: These occupations are concentrated in the radio and television broadcasting sector.

Trends: Employment is expected to grow at a below-average rate. The proliferation of cable and radio stations and the large-scale professional use of videos should create some job opportunities. However, the growth of computer-controlled equipment and remote-controlled transmitters may limit the number of job openings.

Market Requirements: A community college diploma in electrotechnology with a concentration in electronics is an asset to transmitting technicians and master control operators, while a concentration in audio-visual equipment helps switchers and picture controllers.

9555 SOUND AND VIDEO RECORDING AND REPRODUCTION EQUIPMENT OPERATORS

Examples: Sound Editor, Studio Technician, Dubbing Machine Operator, Sound-effects Engineer, Recording Engineer

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1. LABOUR MARKET TO 1993

Jobs 1985	Jobs 1993	Change 1985-1993	+ Attrition 1985-93	**Total requirements 1985-93**
1 141	1 224	83	117	200

Estimated Unemployed 1985	Community College Graduates 1985-93	University Graduates 1985-93	**Partial Supply 1985-1993**
72	75	0	147

° Competition Index: 0.74

2. DISTRIBUTION BY REGION OF QUEBEC

	JOBS 1985 (%)		REGULAR ACTIVE CLAIMANTS 1985 (%)
1	2.92	1	8.43
2	1.98	2	2.91
3	13.99	3	13.25
4	3.24	4	9.64
5	0.63	5	3.61
6	72.09	6	54.22
7	3.87	7	4.82
8	0.79	8	2.41
9	0.47	9	1.20

3. MAIN CHARACTERISTICS

Sex Composition (1981)
Females: 9.2%
Males: 90.8%

Age Composition (1981)
Under 25 years: 23.4%
Over 54 years: 5.2%

Status Composition (1981)
Full-time: 97.3%
Part-time: 2.7%

Industry Concentration: These occupations are concentrated in the radio and television broadcasting, recreation services and education services sectors.

Trends: Employment is expected to grow at a below-average rate. The growing number of cable companies producing their own programs, radio stations increasing their broadcast time and recording studios being established should create some job opportunities.

Market Requirements: Entry to these occupations generally requires a community college diploma in electronics with a concentration in audio-visual equipment. For sound and video recording engineers, a diploma in communications with a concentration in media arts and technology is an asset.